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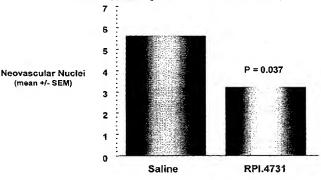
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[Continued on next page]

(54) Title: NUCLEIC ACID BASED MODULATION OF FEMALE REPRODUCTIVE DISEASES AND CONDITIONS

RPI.4731 Reduces Hypoxia-Induced Retinal Neovascularization in Neonatal Mice



SEQ ID NO: 5978
Results: ~40% decrease in retinal neovascularization following two intraocular injections of RPI.4731

(57) Abstract: The present invention relates to nucleic acid molecules, including dsRNA, siRNA, antisense, 2,5-A chimeras, aptamers, and enzymatic nucleic acid molecules, such as hammerhead ribozymes, DNAzymes, and allozymes, which modulate the expression of vascular endothelial growth factor receptor (VEGF) and/or vascular endothelial growth factor receptor (VEGF) genes for the treatment and/or diagnosis of diseases and conditions associated with angiogenesis, such as cancer, tumor angiogenesis, or ocular indications such as diabetic retinopathy, or age related macular degeneration, proliferative diabetic retinopathy, hypoxia-induced angiogenesis, rheumatoid arthritis, psoriasis, wound healing, and female reproductive disorders and conditions, including but not limited to endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), and menopausal dysfunction.





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NUCLEIC ACID BASED MODULATION OF FEMALE REPRODUCTIVE DISEASES AND CONDITIONS

This patent application claims priority from Sandberg et al., USSN 60/334,461, filed November 30, 2001, entitled "Method and Reagent for the Modulation of Female Reproductive Diseases and Conditions" and Pavco et al., USSN 10/138,674, filed May 3, 2002, which is a continuation in part of Pavco et al., USSN 09/870,161, which is a continuation-in-part of Pavco et al., USSN 09/708,690, filed November 7, 2000, which is a continuation-in-part of Pavco et al., USSN 09/371,722, filed August 10, 1999, which is a continuation-in-part of Pavco et al., USSN 08/584,040, filed January 11, 1996, which claims the benefit of Pavco et al., USSN 60/005,974, filed on October 26, 1995; these earlier applications are entitled "Method and Reagent for Treatment of Diseases or Conditions Related to Levels of Vascular Endothelial Growth Factor Receptor". Each of these applications is hereby incorporated by reference herein in it's entirety including the drawings and tables.

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Technical Field Of The Invention

This invention relates to methods and reagents for the treatment of diseases or conditions relating to the levels of expression of vascular endothelial growth factor (VEGF) and vascular endothelial growth factor receptor(s). Specifically, the instant invention features nucleic-acid based molecules and methods that modulate the expression of vascular endothelial growth factor and/or vascular endothelial growth factor receptors, such as VEGFR1 and/or VEGFR2, that are useful in preventing, treating, controlling and/or diagnosing disorders and conditions related to angiogenesis, including but not limited to cancer, tumor angiogenesis, or ocular indications such as diabetic retinopathy, or age related macular degeneration, proliferative diabetic retinopathy, hypoxia-induced angiogenesis, rheumatoid arthritis, psoriasis, wound healing, endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), and menopausal dysfunction.

Background Of The Invention

The following is a discussion of relevant art, none of which is admitted to be prior art to the present invention.

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VEGF, also referred to as vascular permeability factor (VPF) and vasculotropin, is a potent and highly specific mitogen of vascular endothelial cells (for a review see Ferrara, 1993 *Trends Cardiovas. Med.* 3, 244; Neufeld *et al.*, 1994, *Prog. Growth Factor Res.* 5, 89). VEGF-induced neovascularization is implicated in various pathological conditions such as tumor angiogenesis, or ocular indications such as diabetic retinopathy, or age related macular degeneration, proliferative diabetic retinopathy, hypoxia-induced angiogenesis, rheumatoid arthritis, psoriasis, wound healing and others.

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VEGF, an endothelial cell-specific mitogen, is a 34-45 kDa glycoprotein with a wide range of activities that include promotion of angiogenesis, enhancement of vascular-permeability and others. VEGF belongs to the platelet-derived growth factor (PDGF) family of growth factors with approximately 18% homology with the A and B chain of PDGF at the amino acid level. Additionally, VEGF contains the eight conserved cysteine residues common to all growth factors belonging to the PDGF family (Neufeld *et al.*, *supra*). VEGF protein is believed to exist predominantly as disulfide-linked homodimers; monomers of VEGF have been shown to be inactive (Plouet *et al.*, 1989 *EMBO J.* 8, 3801).

VEGF exerts its influence on vascular endothelial cells by binding to specific high-affinity cell surface receptors. Covalent cross-linking experiments with ¹²⁵I-labeled VEGF protein have led to the identification of three high molecular weight complexes of 225, 195 and 175 kDa presumed to be VEGF and VEGF receptor complexes (Vaisman *et al.*, 1990 *J. Biol. Chem.* 265, 19461). Based on these studies VEGF-specific receptors of 180, 150 and 130 kDa molecular mass were predicted. In endothelial cells, receptors of 150 and 130 kDa have been identified. The VEGF receptors belong to the superfamily of receptor tyrosine kinases (RTKs) characterized by a conserved cytoplasmic catalytic kinase domain and a hydrophilic kinase sequence. The extracellular domains of the VEGF receptors consist of seven immunoglobulin-like domains that are thought to be involved in VEGF binding functions.

The two most abundant and high-affinity receptors of VEGF are flt-1 (VEGFR1) (fms-like tyrosine kinase) cloned by Shibuya et al., 1990 Oncogene 5, 519 and KDR (VEGFR2) (kinase-insert-domain-containing receptor) cloned by Terman et al., 1991 Oncogene 6, 1677. The murine homolog of KDR, cloned by Mathews et al., 1991, Proc. Natl. Acad. Sci., USA, 88, 9026, shares 85% amino acid homology with KDR and is termed as flk-1 (fetal liver kinase-1). The high-affinity binding of VEGF to its receptors is modulated by cell surface-associated heparin and heparin-like molecules (Gitay-Goren et al., 1992 J. Biol. Chem. 267, 6093).

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VEGF expression has been associated with several pathological states such as tumor angiogenesis, several forms of blindness, rheumatoid arthritis, psoriasis and others. In addition, a number of studies have demonstrated that VEGF is both necessary and sufficient for neovascularization. Takashita et al., 1995 J. Clin. Invest. 93, 662, demonstrated that a single injection of VEGF augmented collateral vessel development in a rabbit model of ischemia. VEGF also can induce neovascularization when injected into the cornea. Expression of the VEGF gene in CHO cells is sufficient to confer tumorigenic potential to the cells. Kim et al., supra and Millauer et al., supra used monoclonal antibodies against VEGF or a dominant negative form of VEGFR2 receptor to inhibit tumor-induced neovascularization.

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During development, VEGF and its receptors are associated with regions of new vascular growth (Millauer et al., 1993 Cell 72, 835; Shalaby et al., 1993 J. Clin. Invest. 91, 2235). Furthermore, transgenic mice lacking either of the VEGF receptors are defective in blood vessel formation and these mice do not survive; VEGFR2 appears to be required for differentiation of endothelial cells, while VEGFR1 appears to be required at later stages of vessel formation (Shalaby et al., 1995 Nature 376, 62; Fung et al., 1995 Nature 376, 66). Thus, these receptors apparently need to be present to properly signal endothelial cells or their precursors to respond to vascularization-promoting stimuli.

Increasing evidence suggests that the VEGF family may also be involved with both the etiology and maintenance of peritoneal endometriosis. Peritoneal endometriosis is a significant debilitating gynecological problem of widespread prevalence. It is now generally accepted that the pathogenesis of peritoneal endometriosis involves the implantation of exfoliated endometrium. Maintenance of exfoliated endometrial tissue is dependent upon the generation and maintenance of an extensive blood supply both within and surrounding the ectopic tissue.

Endometriosis is a disease affecting an estimated 77 million women and teenagers worldwide. Endometriosis is a leading cause of infertility, chronic pelvic pain and hysterectomy. Endometriosis can be characterized when endometrial tissue (the tissue inside the uterus which builds up and is shed each month during menses) is found outside the uterus, in other areas of the body. The endometrial tissue can respond to hormonal commands each month and break down and bleed. However, unlike the endometrium, these tissue deposits have no way of leaving the body. The result is internal bleeding, degeneration of blood and tissue shed from the growths, inflammation of the surrounding areas, expression of irritating enzymes and formation of scar tissue. In addition, depending on the location of the growths.

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interference with the bowel, bladder, intestines and other areas of the pelvic cavity can occur. Endometrial tissue has even been found lodged in the skin and at other extrapelvic locations like the arm, leg and even brain.

Currently, the presence of Endometriosis can only be confirmed through surgery such as laparoscopy, but can be suspected based on symptoms, physical findings and diagnostic tests. Endometriosis can be treated in many different ways, both surgically and medically. Most commonly, surgery will be performed during which the disease will be excised, ablated, fulgarated, cauterized or otherwise removed, and adhesions will also be freed. Surgeries include but are not limited to laparoscopy; laparotomy; presacral and uterosacral and various levels of hysterectomies, where some or all of the reproductive organs are removed. Often, this method will only relieve the symptoms associated with growths on the reproductive organs, not the bowels or kidneys and related areas where Endometriosis can be present.

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There are several drugs used to treat Endometriosis that are utilized either alone or in combination with surgery. These include contraceptives, GnRH agonists, and/or synthetic hormones. GnRH agonists are commonly used on women in all stages of the disease and may sometimes have serious side affects. GnRH (gonadotropin releasing hormone) analogues are classified into 2 groups: agonists and antagonists. Agonists are commonly used in the treatment of Endometriosis by suppressing the manufacture of follicle stimulating hormone (FSH) and luteinizing hormone (LH), common hormones required in ovulation. When they are not secreted, the body will go into "pseudo-menopause," stalling the growth of more implants. However, these are again only stop-gap measures that can be utilized only for short term intervals. Once the body returns to it's normal state, the Endometriosis will again begin to implant itself.

Angiogenesis is likely to be involved in the pathogenesis of endometriosis. According to the transplantation theory, when the exfoliated endometrium is attached to the peritoneal layer, the establishment of a new blood supply is essential for the survival of the endometrial implant and development of endometriosis (Donnez et al., 1998, Hum. Reprod., 13, 1686-1690). Endometrial growth and repair after menstruation are associated with profound angiogenesis. Abnormalities in these processes result in excessive or unpredictable bleeding patterns and are common in many women. It is therefore important to understand which factors regulate normal endometrial angiogenesis. Vascular endothelial growth factor (VEGF) is an endothelial cell-specific mitogen that plays an important role in normal and pathological angiogenesis (Fasciani et al., 2000, Mol. Hum. Reprod., 6, 50-54; Sharkey et al., 2000, J. Clin. Endocrinol. Metab., 85, 402-409). Sources of this factor include the eutopic

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endometrium, ectopic endometriotic tissue and peritoneal fluid macrophages. Important to its etiology is the correct peritoneal environment in which the exfoliated endometrium is seeded and implants. Established ectopic tissue is then dependent on the peritoneal environment for its survival, an environment that supports angiogenesis. The increasing knowledge of the involvement of the VEGF family in endometriotic angiogenesis raises the possibility of novel approaches to its medical management, with particular focus on the anti-angiogenic control of the action of VEGF (McLaren, 2001, *Hum. Reprod. Update*, 6, 45-55).

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Pavco et al., International PCT Publication No. WO 97/15662, describes methods and reagents for treating diseases or conditions related to levels of vascular endothelial growth factor receptor.

Robinson, International PCT Publication No. WO 95/04142, describes the use of certain antisense oligonucleotides targeted against VEGF RNA to inhibit VEGF expression.

Jellinek et al., 1994 Biochemistry 33, 10450 describe the use of specific VEGF-specific high-affinity RNA aptamers to inhibit the binding of VEGF to its receptors.

Rockwell and Goldstein, International PCT Publication No. WO 95/21868, describe the use of certain anti-VEGF receptor monoclonal antibodies to neutralize the effect of VEGF on endothelial cells.

Pappa, International PCT Publication No. WO 01/32920, describes inhibitors, including certain ribozyme and antisense nucleic acid molecules, of specific genes, including cathepsin D, AEBP-1, stromelysin-3, cystatin B, protease inhibitor 1, sFRP4, gelsolin, IGFBP-3, dual specificity phosphatase 1, PAEP, Ig gamma chain, ferritin, complement component 3, proalpha-1 type III collagen, proline 4-hydroxylase, alpha-2 type I collagen, claudin-4, melanoma adhesion protein, procollagen C-endopeptidase enhancer, nascent-polypeptide-associated complex alpha polypeptide, elongation factor 1 alpha (EF-1-alpha), vitamin D3 25 hydroxylase, CSRP-1, steroidogenic acute regulatory protein, apolipoprotein E, transcobalamin II, prosaposin, early growth response 1 (EGR1), ribosomal protein S6, adenosine deaminase RNA-specific protein, RAD21, guanine nucleotide binding protein beta polypeptide 2-like 1 (RACK1) and podocalyxin genes which are all differentially expressed in tissues within individual patients with endometriosis.

Labarbera et al., International PCT Publication No. WO 00/73416, describes specific antisense nucleic acid molecules targeting follicle-stimulating hormone receptor.

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Storella *et al.*, International PCT Publication No. WO 99/63116, describes modulators of Prothymosin gene products for treating endometriosis, including certain ribozymes and antisense nucleic acid molecules.

Summary Of The Invention

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This invention features nucleic acid-based molecules, for example, enzymatic nucleic acid molecules, allozymes, antisense nucleic acids, 2-5A antisense chimeras, triplex forming oligonucleotides, decoy RNA, dsRNA, siRNA, aptamers, and antisense nucleic acids containing nucleic acid cleaving chemical groups, and methods to modulate vascular endothelial growth factor (VEGF) and/or vascular endothelial growth factor receptor (VEGFr) gene expression. Non-limiting examples of genes that encode vascular endothelial growth factor receptors of the invention include VEGFR1, VEGFR2 or combinations thereof. In particular, the instant invention features nucleic acid-based molecules and methods that modulate the expression of vascular endothelial growth factor and/or vascular endothelial growth factor receptors, such as VEGFR1 and/or VEGFR2, that are useful in preventing, treating, controlling, and/or diagnosing angiogenesis related diseases and conditions, including but not limited to tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, or ocular indications such as diabetic retinopathy, or age related macular degeneration, and female reproductive disorders and conditions, including but not limited to endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), and menopausal dysfunction.

In one embodiment, the invention features one or more nucleic acid-based molecules and methods that independently or in combination modulate the expression of gene(s) encoding vascular endothelial growth factor receptors. Specifically, the present invention features nucleic acid molecules that modulate the expression of VEGF (for example Genbank Accession No. NM_003376), VEGFR1 receptor (for example Genbank Accession No. NM_002019), and VEGFR2 receptor (for example Genbank Accession No. NM_002253) that are useful in preventing, treating, controlling, and/or diagnosing tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, or ocular indications such as diabetic retinopathy, or age related macular degeneration, and female reproductive disorders and conditions, including but not limited to

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endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), and menopausal dysfunction.

In one embodiment, the present invention features a compound having Formula I: (SEQ ID NO: 5977)

5' g_Sa_Sg_Su_Sugc<u>U</u>GAuGagg ccgaaa ggccGaaAgucugB 3'

wherein each a is 2'-O-methyl adenosine nucleotide, each g is a 2'-O-methyl guanosine nucleotide, each c is a 2'-O-methyl cytidine nucleotide, each u is a 2'-O-methyl uridine nucleotide, each A is adenosine, each G is guanosine, each s individually represents a phosphorothioate internucleotide linkage, U is 2'-deoxy-2'-C-allyl uridine, and B is an inverted deoxyabasic moiety. This compound is also referred to as ANGIOZYMETM ribozyme.

In another embodiment, the present invention features a compound having Formula II: (SEQ ID NO: 5978).

5'-usascs asau ucU GAu Gag gcg aaa gcc Gaa Aag aca aB-3'

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wherein each a is 2'-O-methyl adenosine nucleotide, each ${\bf g}$ is a 2'-O-methyl guanosine nucleotide, each ${\bf c}$ is a 2'-O-methyl cytidine nucleotide, each ${\bf u}$ is a 2'-O-methyl uridine nucleotide, each ${\bf A}$ is adenosine, each ${\bf G}$ is guanosine, each ${\bf s}$ individually represents a phosphorothioate internucleotide linkage, $\underline{{\bf U}}$ is 2'-deoxy-2'-C-allyl uridine, and ${\bf B}$ is an inverted deoxyabasic moiety.

In one embodiment, the invention features a composition comprising a nucleic acid molecule of the invention in a pharmaceutically acceptable carrier. In another embodiment, the invention features a composition comprising a compound of Formula I and/or Formula II in a pharmaceutically acceptable carrier or diluent.

In one embodiment, the invention features a method of administering to a cell, for example a mammalian cell, including a human cell, a nucleic acid molecule of the invention comprising contacting the cell with the nucleic acid molecule under conditions suitable for administration, for example in the presence of a delivery reagent such as a lipid, cationic lipid, phospholipid, or liposome. In another embodiment, the invention features a method of administering to a cell, for example a mammalian cell, including a human cell, a compound of Formula I and/or Formula II and/or Formula II comprising contacting the cell with the compound under

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conditions suitable for administration, for example in the presence of a delivery reagent such as a lipid, cationic lipid, phospholipid, or liposome.

In one embodiment, the present invention features a mammalian cell comprising a nucleic acid molecule of the invention, wherein the mammalian cell is, for example, a human cell. In another embodiment, the present invention also features a mammalian cell comprising the compound of Formula I and/or Formula II, wherein the mammalian cell is, for example, a human cell.

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In one embodiment, the invention features a method of inhibiting angiogenesis, for example tumor angiogenesis, or ocular indications such as diabetic retinopathy, or age related macular degeneration, or endometrial neovascularization, in a subject comprising contacting the subject with a nucleic acid molecule of the invention, under conditions suitable for the inhibition. In another embodiment, the invention features a method of inhibiting angiogenesis, for example tumor angiogenesis, or ocular indications such as diabetic retinopathy, or age related macular degeneration, or endometrial neovascularization, in a subject, comprising contacting the subject with a compound of Formula I and/or Formula II, under conditions suitable for the inhibition.

In another embodiment, the invention features a method of treatment of a subjecthaving an ocular condition associated with the increased level of a VEGF receptor, for example diabetic retinopathy, or age related macular degeneration, comprising contacting cells of the subjectwith a nucleic acid molecule, such as an enzymatic nucleic acid molecule targeted against a VEGF receptor RNA, e.g., molecule according to Formula I and/or II, under conditions suitable for the treatment.

In another embodiment, the invention features a method of treatment of a subjecthaving a condition associated with an increased level of VEGR and/or a VEGF receptor, for example tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, ocular diseases or ocular indications such as diabetic retinopathy, or age related macular degeneration, rhuematoid arthritis, psoriasis endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), or menopausal dysfunction, comprising contacting cells of the subject with a nucleic acid molecule of the invention, such as a compound of Formula I and/or Formula II, under conditions suitable for the treatment.

In yet another embodiment, the inventive method of treatment further comprises the use of one or more drug therapies under conditions suitable for the treatment. Non-limiting

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examples of other drug therapies that can be used in combination with nucleic acid molecules of the invention include to 5-fluoro uridine, Leucovorin, Irinotecan (CAMPTOSAR® or CPT-11 or Camptothecin-11 or Campto), Paclitaxel, or Carboplatin, GnRH (gonadotropin releasing hormone) agonists, Lupron Depot (Leuprolide Acetate), Synarel (naferalin acetate), Zolodex (goserelin acetate), Suprefact (buserelin acetate), Danazol, or oral contraceptives including but not limited to Depo-Provera or Provera (medroxyprogesterone acetate), or any other estrogen/progesterone contraceptive.

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In one embodiment, the invention features a method of administering to a mammal, for example a human, a nucleic acid molecule of the invention comprising contacting the mammal with the nucleic acid molecule under conditions suitable for the administration, for example, in the presence of a delivery reagent such as a lipid, cationic lipid, phospholipid, or liposome. In another embodiment, the invention features a method of administering to a mammal, for example a human, a compound of Formula I and/or Formula II comprising contacting the mammal with the compound under conditions suitable for the administration, for example, in the presence of a delivery reagent such as a lipid, cationic lipid, phospholipid, or liposome.

In one embodiment, the invention features a nucleic acid molecule which down regulates expression of a vascular endothelial growth factor (VEGF) and/or vascular endothelial growth factor receptor (VEGFr) gene, for example, wherein the VEGFr gene comprises VEGFR1 or VEGFR2 and any combination thereof.

In one embodiment, a nucleic acid molecule of the invention, such as an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups, is adapted to treat, control and/or diagnose tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, ocular diseases or ocular indications, such as diabetic retinopathy, or age related macular degeneration, rhuematoid arthritis, psoriasis endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), or menopausal dysfunction.

Such nucleic acid molecules are also useful for the prevention of the diseases and conditions including diabetic retinopathy, macular degeneration, neovascular glaucoma, myopic degeneration, verruca vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome

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and other diseases or conditions that are related to the levels of VEGFR1 or VEGFR2 in a cell or tissue.

In another embodiment, the invention features a composition in a pharmaceutically acceptable carrier or diluent, comprising the nucleic acid molecule of the instant invention.

In another embodiment, an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups of the invention is adapted for birth control.

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In one embodiment, an enzymatic nucleic acid molecule of the invention is in a hammerhead, Inozyme, Zinzyme, DNAzyme, Amberzyme, or G-cleaver configuration.

In one embodiment, an enzymatic nucleic acid molecule of the invention comprises between 8 and 100 bases complementary to RNA of VEGFR1 and/or VEGFR2 gene. In another embodiment, an enzymatic nucleic acid molecule of the invention comprises between 14 and 24 bases complementary to RNA of VEGFR1 and/or VEGFR2 gene.

In one embodiment, a siRNA molecule of the invention comprises a double stranded RNA wherein one strand of the RNA is complementary to RNA of a VEGFR1 and/or VEGFR2 gene. In another embodiment, a siRNA molecule of the invention comprises a double stranded RNA wherein one strand of the RNA comprises a portion of a sequence of RNA having a VEGFR1 and/or VEGFR2 sequence. In yet another embodiment, a siRNA molecule of the invention comprises a double stranded RNA wherein both strands of RNA are connected by a non-nucleotide linker. Alternately, a siRNA molecule of the invention comprises a double stranded RNA wherein both strands of RNA are connected by a nucleotide linker, such as a loop or stem loop structure.

In one embodiment, a single strand component of a siRNA molecule of the invention is from about 14 to about 50 nucleotides in length. In another embodiment, a single strand component of a siRNA molecule of the invention is about 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, or 28 nucleotides in length. In yet another embodiment, a single strand component of a siRNA molecule of the invention is about 23 nucleotides in length. In one embodiment, a siRNA molecule of the invention is from about 28 to about 56 nucleotides in length. In another embodiment, a siRNA molecule of the invention is about 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, or 52 nucleotides in length. In yet another embodiment, a siRNA molecule of the invention is about 46 nucleotides in length.

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In one embodiment, an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups of the invention is chemically synthesized.

In another embodiment, an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups of the invention comprises at least one 2'-sugar modification.

In another embodiment, an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acids containing nucleic acid cleaving chemical groups of the invention comprises at least one nucleic acid base modification.

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In another embodiment, an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups of the invention comprises at least one phosphate backbone modification.

In one embodiment, the invention features a mammalian cell, for example a human cell, comprising a nucleic acid molecule of the invention.

In another embodiment, the invention features a method of reducing VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 expression or activity in a cell comprising contacting the cell with a nucleic acid molecule of the invention that modulates the expression and/or activity of VEGF and/or VEGFr, under conditions suitable for the reduction.

In another embodiment, a method of treatment of a subject having a condition associated with the level of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 is featured, wherein the method further comprises the use of one or more drug therapies under conditions suitable for the treatment.

In one embodiment, the invention features a method for treatment of a subject having tumor angiogenesis, tumor angiogenesis, cancers including but not limited to tumor and cancer types shown under Diagnosis in **Table III**, ocular diseases or ocular indications such as diabetic retinopathy, or age related macular degeneration, rhuematoid arthritis, psoriasis and/or endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular

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menstrual cycles, ovulation, premenstrual syndrome (PMS), or menopausal dysfunction, comprising administering to the subject a nucleic acid molecule of the invention that modulates the expression and/or activity of VEGF and/or VEGFr under conditions suitable for the treatment.

In another embodiment, the invention features a method for birth control in a subject comprising administering to the subject a nucleic acid molecule of the invention that modulates the expression and/or activity of VEGF and/or VEGFr under conditions suitable for the treatment.

In another embodiment, the invention features a method of cleaving RNA encoded by a VEGF, VEGFR1 and/or VEGFR2 gene comprising contacting an enzymatic nucleic acid molecule of the invention having endonuclease activity with RNA encoded by a VEGFR1 and/or VEGFR2 gene under conditions suitable for the cleavage, for example, wherein the cleavage is carried out in the presence of a divalent cation, such as Mg²⁺.

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In one embodiment, a nucleic acid molecule of the invention comprises a cap structure, for example a 3',3'-linked or 5',5'-linked deoxyabasic ribose derivative, wherein the cap structure is at the 5'-end, or 3'-end, or both the 5'-end and the 3'-end of the enzymatic nucleic acid molecule.

In another embodiment, a nucleic acid molecule of the invention comprises a cap structure, for example a 3',3'-linked or 5',5'-linked deoxyabasic ribose derivative, wherein the cap structure is at the 5'-end, or 3'-end, or both the 5'-end and the 3'-end of the antisense nucleic acid molecule.

In one embodiment, the invention features an expression vector comprising a nucleic acid sequence encoding at least one nucleic acid molecule of the invention such that the vector allows expression of the nucleic acid molecule.

In another embodiment, the invention features a mammalian cell, for example, a human cellcomprising an expression vector of the invention.

In yet another embodiment, an expression vector of the invention further comprises a sequence for a nucleic acid molecule complementary to RNA encoded by a VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 gene.

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In one embodiment, an expression vector of the invention comprises a nucleic acid sequence encoding two or more nucleic acid molecules of the invention, which can be the same or different.

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In another embodiment, the invention features a method for treatment or control of tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, or ocular indications such as diabetic retinopathy, or age related macular degeneration, and/or endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), or menopausal dysfunction, comprising administering to a subject a nucleic acid molecule of the invention that modulates the expression and/or activity of VEGF and/or VEGFr, such as an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups of the invention, under conditions suitable for the treatment, including administering to the subject one or more other therapies, for example, 5-fluoro uridine, Leucovorin, Irinotecan (CAMPTOSAR® or CPT-11 or Camptothecin-11 or Campto), Paclitaxel, or Carboplatin.GnRH (gonadotropin releasing hormone) agonists, Lupron Depot (Leuprolide Acetate), Synarel (naferalin acetate), Zolodex (goserelin acetate), Suprefact (buserelin acetate), Danazol, or oral contraceptives including but not limited to Depo-Provera or Provera (medroxyprogesterone acetate), or any other estrogen/progesterone contraceptive.

In one embodiment, the method of treatment features a nucleic acid molecule of the invention, such as an enzymatic nucleic acid or antisense nucleic acid molecule, that comprises at least five ribose residues, at least ten 2'-O-methyl modifications, and a 3'- end modification, such as a 3'-3' inverted abasic moiety. In another embodiment, a nucleic acid molecule of the invention further comprises phosphorothioate linkages on at least three of the 5' terminal nucleotides.

In another embodiment, the invention features a method of administering to a mammal, for example a human, an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups of the invention, comprising contacting the mammal with the nucleic acid molecule under conditions suitable for the administration, for example, in the presence of a delivery reagent such as a lipid, cationic lipid, phospholipid, or liposome.

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In yet another embodiment, the invention features a method of administering to a mammal an enzymatic nucleic acid molecule, antisense nucleic acid molecule, 2-5A antisense chimera, triplex forming oligonucleotide, decoy RNA, dsRNA, siRNA, aptamer, or antisense nucleic acid containing nucleic acid cleaving chemical groups of the invention in conjunction with other therapies, comprising contacting the mammal, for example a human, with the nucleic acid molecule and the other therapy under conditions suitable for the administration.

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In another embodiment, other therapies contemplated by the instant invention that can be used in conjunction with the nucleic acid molecules of the instant invention include, but are not limited to, 5-fluoro uridine, Leucovorin, Irinotecan (CAMPTOSAR® or CPT-11 or Camptothecin-11 or Campto), Paclitaxel, or Carboplatin, GnRH (gonadotropin releasing hormone) agonists, Lupron Depot (Leuprolide Acetate), Synarel (naferalin acetate), Zolodex (goserelin acetate), Suprefact (buserelin acetate), Danazol, or oral contraceptives including but not limited to Depo-Provera or Provera (medroxyprogesterone acetate), or other estrogen/progesterone contraceptive.

In one embodiment, the invention features the use of an enzymatic nucleic acid molecule, to down-regulate the expression of VEGFR1 and/or VEGFR2 genes in the treatment or control of tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, or ocular indications such as diabetic retinopathy, or age related macular degeneration, and/or endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), or menopausal dysfunction. Such enzymatic nucleic acid molecule can be in the hammerhead, NCH, G-cleaver, Amberzyme, Zinzyme, and/or DNAzyme motif.

In another embodiment, the invention features the use of an enzymatic nucleic acid moleculeto down-regulate the expression of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 genes, as a method of birth control. Such enzymatic nucleic acid molecule can be in the hammerhead, NCH, G-cleaver, Amberzyme, Zinzyme, and/or DNAzyme motif. In one embodiment, the nucleic acid molecules of the invention have complementarity to the substrate sequences in **Tables V and VI**. Examples of enzymatic nucleic acid molecules of the invention are shown in **Tables V and VI**. Examples of such enzymatic nucleic acid molecules consist essentially of sequences defined in these Tables.

By "inhibit", "down-regulate", or "reduce", it is meant that the expression of the gene, or level of nucleic acids or equivalent nucleic acids encoding one or more proteins or protein subunits, or activity of one or more proteins or protein subunits, such as VEGFR1, VEGFR2

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and/or flk-1, is reduced below that observed in the absence of the nucleic acid molecules of the invention. In one embodiment, inhibition, down-regulation or reduction with enzymatic nucleic acid molecule preferably is below that level observed in the presence of an enzymatically inactive or attenuated molecule that is able to bind to the same site on the target nucleic acid, but is unable to cleave that nucleic acid. In another embodiment, inhibition, down-regulation, or reduction with antisense oligonucleotides is preferably below that level observed in the presence of, for example, an oligonucleotide with scrambled sequence or with mismatches. In another embodiment, inhibition, down-regulation, or reduction of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 with the nucleic acid molecule of the instant invention is greater in the presence of the nucleic acid molecule than in its absence.

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By "up-regulate" is meant that the expression of a gene, or level of nucleic acids or equivalent nucleic acids encoding one or more proteins or protein subunits, or activity of one or more proteins or protein subunits, such as VEGFR1 and/or VEGFR2, is greater than that observed in the absence of the nucleic acid molecules of the invention. For example, the expression of a gene, such as VEGF and/or VEGFR, such as VEGFR1 and/or VEGFR2 gene, can be increased in order to treat, prevent, ameliorate, or modulate a pathological condition caused or exacerbated by an absence or low level of gene expression.

By "modulate" is meant that the expression of a gene, or level of nucleic acids or equivalent nucleic acids encoding one or more proteins or protein subunits, or activity of one or more proteins protein subunit(s) is up-regulated or down-regulated, such that the expression, level, or activity is greater than or less than that observed in the absence of the nucleic acid molecules of the invention.

By "enzymatic nucleic acid molecule" it is meant a nucleic acid molecule which has complementarity in a substrate binding region to a specified gene target, and also has an enzymatic activity which is active to specifically cleave a target nucleic acid. That is, the enzymatic nucleic acid molecule is able to intermolecularly cleave a nucleic acid and thereby inactivate a target nucleic acid molecule. These complementary regions allow sufficient hybridization of the enzymatic nucleic acid molecule to the target nucleic acid and thus permit cleavage. One hundred percent complementarity is preferred, but complementarity as low as 50-75% can also be useful in this invention (see for example Werner and Uhlenbeck, 1995, *Nucleic Acids Research*, 23, 2092-2096; Hammann *et al.*, 1999, *Antisense and Nucleic Acid Drug Dev.*, 9, 25-31). The nucleic acids can be modified at the base, sugar, and/or phosphate groups. The term enzymatic nucleic acid is used interchangeably with phrases such

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as ribozymes, catalytic RNA, enzymatic RNA, catalytic DNA, aptazyme or aptamer-binding ribozyme, regulatable ribozyme, catalytic oligonucleotides, nucleozyme, DNAzyme, RNA enzyme, endoribonuclease, endonuclease, minizyme, leadzyme, oligozyme or DNA enzyme. All of these terminologies describe nucleic acid molecules with enzymatic activity. The specific enzymatic nucleic acid molecules described in the instant application are not limiting in the invention and those skilled in the art will recognize that all that is important in an enzymatic nucleic acid molecule of this invention is that it has a specific substrate binding site which is complementary to one or more of the target nucleic acid regions, and that it have nucleotide sequences within or surrounding that substrate binding site which impart a nucleic acid cleaving and/or ligation activity to the molecule (Cech et al., U.S. Patent No. 4,987,071; Cech et al., 1988, 260 JAMA 3030).

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Several varieties of naturally-occurring enzymatic nucleic acids are known presently. Each can catalyze the hydrolysis of nucleic acid phosphodiester bonds in trans (and thus can cleave other nucleic acid molecules) under physiological conditions. Table I summarizes some of the characteristics of these ribozymes. In general, enzymatic nucleic acids act by first binding to a target nucleic acid. Such binding occurs through the target binding portion of a enzymatic nucleic acid which is held in close proximity to an enzymatic portion of the molecule that acts to cleave the target nucleic acid. Thus, the enzymatic nucleic acid first recognizes and then binds a target nucleic acid through complementary base-pairing, and once bound to the correct site, acts enzymatically to cut the target nucleic acid. Strategic cleavage of such a target nucleic acid will destroy its ability to direct synthesis of an encoded protein. After an enzymatic nucleic acid has bound and cleaved its nucleic acid target, it is released from that nucleic acid to search for another target and can repeatedly bind and cleave new targets. Thus, a single ribozyme molecule is able to cleave many molecules of target nucleic acid. In addition, the ribozyme is a highly specific inhibitor of gene expression, with the specificity of inhibition depending not only on the base-pairing mechanism of binding to the target nucleic acid, but also on the mechanism of target nucleic acid cleavage. Single mismatches, or base-substitutions, near the site of cleavage can completely eliminate catalytic activity of a ribozyme.

In one embodiment of the inventions described herein, an enzymatic nucleic acid molecule of the invention is formed in a hammerhead or hairpin motif, but can also be formed in the motif of a hepatitis delta virus, group I intron, group II intron or RNase P RNA (in association with an RNA guide sequence), *Neurospora* VS RNA, DNAzymes, NCH cleaving motifs, or G-cleavers. Examples of such hammerhead motifs are described by Dreyfus, supra, Rossi et al., 1992, AIDS Research and Human Retroviruses 8, 183; of hairpin motifs

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by Hampel et al., EP0360257, Hampel and Tritz, 1989 Biochemistry 28, 4929, Feldstein et al., 1989, Gene 82, 53, Haseloff and Gerlach, 1989, Gene, 82, 43, and Hampel et al., 1990 Nucleic Acids Res. 18, 299; Chowrira & McSwiggen, US. Patent No. 5,631,359; an examples of a hepatitis delta virus motif is described by Perrotta and Been, 1992 Biochemistry 31, 16; examples of RNase P motifs are described by Guerrier-Takada et al., 1983 Cell 35, 849; 5 Forster and Altman, 1990, Science 249, 783; Li and Altman, 1996, Nucleic Acids Res. 24, 835; examples of Neurospora VS RNA ribozyme motifs are described by Collins (Saville and Collins, 1990 Cell 61, 685-696; Saville and Collins, 1991 Proc. Natl. Acad. Sci. USA 88, 8826-8830; Collins and Olive, 1993 Biochemistry 32, 2795-2799; Guo and Collins, 1995, 10 EMBO. J. 14, 363); examples of Group II introns are described by Griffin et al., 1995, Chem. Biol. 2, 761; Michels and Pyle, 1995, Biochemistry 34, 2965; Pyle et al., International PCT Publication No. WO 96/22689; an example of a Group I intron is described by Cech et al., U.S. Patent 4,987,071; and examples of DNAzymes are described by Usman et al., International PCT Publication No. WO 95/11304; Chartrand et al., 1995, NAR 23, 4092; 15 Breaker et al., 1995, Chem. Bio. 2, 655; Santoro et al., 1997, PNAS 94, 4262, and Beigelman et al., International PCT publication No. WO 99/55857. NCH cleaving motifs are described in Ludwig & Sproat, International PCT Publication No. WO 98/58058; and G-cleavers are described in Kore et al., 1998, Nucleic Acids Research 26, 4116-4120 and Eckstein et al., International PCT Publication No. WO 99/16871. Additional motifs such as the Aptazyme 20 (Breaker et al., WO 98/43993), Amberzyme (Beigelman et al., U.S. Serial No. 09/301,511) and Zinzyme (Figure 7) (Beigelman et al., U.S. Serial No. 09/918,728), all included by reference herein including drawings, can also be used in the present invention. These specific motifs or configurations are not limiting in the invention and those skilled in the art will recognize that all that is important in an enzymatic nucleic acid molecule of this invention is 25 that it have a specific substrate binding site which is complementary to one or more of the target gene RNA regions, and that it have nucleotide sequences within or surrounding that substrate binding site which impart a RNA cleaving activity to the molecule (Cech et al., U.S. Patent No. 4,987,071).

By "nucleic acid molecule" as used herein is meant a molecule having nucleotides. The nucleic acid can be single, double, or multiple stranded and can comprise modified or unmodified nucleotides or non-nucleotides or various mixtures and combinations thereof.

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By "enzymatic portion" or "catalytic domain" is meant that portion/region of a enzymatic nucleic acid molecule essential for cleavage of a nucleic acid substrate (for example see Figure 6).

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By "substrate binding arm" or "substrate binding domain" is meant that portion/region of a enzymatic nucleic acid which is able to interact, for example via complementarity (i.e., able to base-pair with), with a portion of its substrate. Preferably, such complementarity is 100%, but can be less if desired. For example, as few as 10 bases out of 14 can be base-paired (see for example Werner and Uhlenbeck, 1995, Nucleic Acids Research, 23, 2092-2096; Hammann et al., 1999, Antisense and Nucleic Acid Drug Dev., 9, 25-31). Examples of such arms are shown generally in Figures 6-8. That is, these arms contain sequences within a enzymatic nucleic acid which are intended to bring enzymatic nucleic acid and target nucleic acid together through complementary base-pairing interactions. An enzymatic nucleic acid of the invention can have binding arms that are contiguous or non-contiguous and can be of varying lengths. The length of the binding arm(s) are preferably greater than or equal to four nucleotides and of sufficient length to stably interact with the target nucleic acid; preferably 12-100 nucleotides; more preferably 14-24 nucleotides long (see for example Werner and Uhlenbeck, supra; Hamman et al., supra; Hampel et al., EP0360257; Berzal-Herranz et al., 1993, EMBO J., 12, 2567-73) or between 8 and 14 nucleotides long. If two binding arms are chosen, the design is such that the length of the binding arms are symmetrical (i.e., each of the binding arms is of the same length; e.g., four and four, five and five nucleotides, or six and six nucleotides, or seven and seven nucleotides long) or asymmetrical (i.e., the binding arms are of different length; e.g., three and five, six and three nucleotides; three and six nucleotides long; four and five nucleotides long; four and six nucleotides long; four and seven nucleotides long; and the like).

By "Inozyme" or "NCH" motif or configuration is meant, an enzymatic nucleic acid molecule comprising a motif as is generally described as NCH Rz in Figure 6 and in Ludwig et al., International PCT Publication No. WO 98/58058 and US Patent Application Serial No. 08/878,640. Inozymes possess endonuclease activity to cleave nucleic acid substrates having a cleavage triplet NCH/, where N is a nucleotide, C is cytidine and H is adenosine, uridine or cytidine, and "/" represents the cleavage site. H is used interchangeably with X. Inozymes can also possess endonuclease activity to cleave nucleic acid substrates having a cleavage triplet NCN/, where N is a nucleotide, C is cytidine, and "/" represents the cleavage site. "T" in Figure 6 represents an Inosine nucleotide, preferably a ribo-Inosine or xylo-Inosine nucleoside.

By "G-cleaver" motif or configuration is meant, an enzymatic nucleic acid molecule comprising a motif as is generally described as G-cleaver Rz in Figure 6 and in Eckstein *et al.*, US 6,127,173. G-cleavers possess endonuclease activity to cleave nucleic acid substrates having a cleavage triplet NYN/, where N is a nucleotide, Y is uridine or cytidine and "/"

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represents the cleavage site. G-cleavers can be chemically modified as is generally shown in Figure 6.

By "amberzyme" motif or configuration is meant, an enzymatic nucleic acid molecule comprising a motif as is generally described in Beigelman *et al.*, International PCT publication No. WO 99/55857 and US Patent Application Serial No. 09/476,387. Amberzymes possess endonuclease activity to cleave nucleic acid substrates having a cleavage triplet NG/N, where N is a nucleotide, G is guanosine, and "/" represents the cleavage site. Amberzymes can be chemically modified to increase nuclease stability through substitutions using modified nucleotides. In addition, differing nucleoside and/or non-nucleoside linkers can be used to substitute the 5'-gaaa-3' loops shown in the figure. Amberzymes represent a non-limiting example of an enzymatic nucleic acid molecule that does not require a ribonucleotide (2'-OH) group within its own nucleic acid sequence for activity.

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By "zinzyme" motif or configuration is meant, an enzymatic nucleic acid molecule comprising a motif as is generally described in Figure 7 and in Beigelman et al., International PCT publication No. WO 99/55857 and US Patent Application Serial No. 09/918,728. Zinzymes possess endonuclease activity to cleave nucleic acid substrates having a cleavage triplet including but not limited to YG/Y, where Y is uridine or cytidine, and G is guanosine and "/" represents the cleavage site. Zinzymes can be chemically modified to increase nuclease stability through substitutions as are generally shown in Figure 7, including substituting 2'-O-methyl guanosine nucleotides for guanosine nucleotides. In addition, differing nucleotide and/or non-nucleotide linkers can be used to substitute the 5'-gaaa-2' loop shown in the figure. Zinzymes represent a non-limiting example of an enzymatic nucleic acid molecule that does not require a ribonucleotide (2'-OH) group within its own nucleic acid sequence for activity.

By 'DNAzyme' is meant, an enzymatic nucleic acid molecule that does not require the presence of a 2'-OH group within its own nucleic acid sequence for activity. In particular embodiments the enzymatic nucleic acid molecule can have an attached linker or linkers or other attached or associated groups, moieties, or chains containing one or more nucleotides with 2'-OH groups. DNAzymes can be synthesized chemically or expressed endogenously in vivo, by means of a single stranded DNA vector or equivalent thereof. An example of a DNAzyme is shown in **Figure 8** and is generally reviewed in Usman et al., US patent No., 6,159,714; Chartrand et al., 1995, NAR 23, 4092; Breaker et al., 1995, Chem. Bio. 2, 655; Santoro et al., 1997, PNAS 94, 4262; Breaker, 1999, Nature Biotechnology, 17, 422-423; and

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Santoro et. al., 2000, J. Am. Chem. Soc., 122, 2433-39. The "10-23" DNAzyme motif is one particular type of DNAzyme that was evolved using in vitro selection, see Santoro et al., supra and as generally described in Joyce et al., US 5,807,718. Additional DNAzyme motifs can be selected for using techniques similar to those described in these references, and hence, are within the scope of the present invention.

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By "sufficient length" is meant a nucleic acid molecule of the invention is long enough to provide the intended function under the expected condition. For example, a nucleic acid molecule of the invention needs to be of "sufficient length" to provide stable interaction with a target nucleic acid molecule under the expected binding conditions and environment. In another non-limiting example, for the binding arms of an enzymatic nucleic acid, "sufficient length" means that the binding arm sequence is long enough to provide stable binding to a target site under the expected reaction conditions and environment. The binding arms are not so long as to prevent useful turnover of the nucleic acid molecule.

By "stably interact" is meant interaction of an oligonucleotides with target nucleic acid (e.g., by forming hydrogen bonds with complementary nucleotides in the target under physiological conditions) that is sufficient to the intended purpose (e.g., cleavage of target nucleic acid by an enzyme).

By "equivalent" RNA to VEGF, VEGFR1 and/or VEGFR2 is meant to include nucleic acid molecules having homology (partial or complete) to a nucleic acid encoding VEGF, VEGFR1 and/or VEGFR2 proteins or encoding proteins with similar function as VEGF, VEGFR1 and/or VEGFR2 proteins in various organisms, including human, rodent, primate, rabbit, pig, protozoans, fungi, plants, and other microorganisms and parasites. The equivalent nucleic acid sequence also includes, in addition to the coding region, regions such as 5'-untranslated region, 3'-untranslated region, introns, intron-exon junction and the like.

By "homology" is meant the nucleotide sequence of two or more nucleic acid molecules is partially or completely identical.

By "antisense nucleic acid", it is meant a non-enzymatic nucleic acid molecule that binds to target nucleic acid by means of RNA-RNA or RNA-DNA or RNA-PNA (protein nucleic acid; Egholm *et al.*, 1993 *Nature* 365, 566) interactions and alters the activity of the target nucleic acid (for a review, see Stein and Cheng, 1993 *Science* 261, 1004 and Woolf *et al.*, US patent No. 5,849,902). Typically, antisense molecules are complementary to a target sequence along a single contiguous sequence of the antisense molecule. However, in certain embodiments, an antisense molecule can bind to substrate such that the substrate molecule

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forms a loop, and/or an antisense molecule can bind such that the antisense molecule forms a loop. Thus, an antisense molecule can be complementary to two (or even more) non-contiguous substrate sequences or two (or even more) non-contiguous sequence portions of an antisense molecule can be complementary to a target sequence or both. For a review of current antisense strategies, see Schmajuk et al., 1999, J. Biol. Chem., 274, 21783-21789, Delihas et al., 1997, Nature, 15, 751-753, Stein et al., 1997, Antisense N. A. Drug Dev., 7, 151, Crooke, 2000, Methods Enzymol., 313, 3-45; Crooke, 1998, Biotech. Genet. Eng. Rev., 15, 121-157, Crooke, 1997, Ad. Pharmacol., 40, 1-49. In addition, antisense DNA can be used to target nucleic acid by means of DNA-RNA interactions, thereby activating RNase H, which digests the target nucleic acid in the duplex. The antisense oligonucleotides can comprise one or more RNAse H activating region, which is capable of activating RNAse H cleavage of a target nucleic acid. Antisense DNA can be synthesized chemically or expressed via the use of a single stranded DNA expression vector or equivalent thereof.

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By "RNase H activating region" is meant a region (generally greater than or equal to 4-25 nucleotides in length, preferably from 5-11 nucleotides in length) of a nucleic acid molecule capable of binding to a target nucleic acid to form a non-covalent complex that is recognized by cellular RNase H enzyme (see for example Arrow et al., US 5,849,902; Arrow et al., US 5,989,912). The RNase H enzyme binds to a nucleic acid molecule-target nucleic acid complex and cleaves the target nucleic acid sequence. The RNase H activating region comprises, for example, phosphodiester, phosphorothioate (preferably at least four of the nucleotides are phosphorothiote substitutions; more specifically, 4-11 of the nucleotides are phosphorothiote substitutions); phosphorodithioate, 5'-thiophosphate, or methylphosphonate backbone chemistry or a combination thereof. In addition to one or more backbone chemistries described above, the RNase H activating region can also comprise a variety of sugar chemistries. For example, the RNase H activating region can comprise deoxyribose, arabino, fluoroarabino or a combination thereof, nucleotide sugar chemistry. Those skilled in the art will recognize that the foregoing are non-limiting examples and that any combination of phosphate, sugar and base chemistry of a nucleic acid that supports the activity of RNase H enzyme is within the scope of the definition of the RNase H activating region and the instant invention.

By "2-5A antisense chimera" is meant an antisense oligonucleotide containing a 5'-phosphorylated 2'-5'-linked adenylate residue. These chimeras bind to target nucleic acid in a sequence-specific manner and activate a cellular 2-5A-dependent ribonuclease which, in turn, cleaves the target nucleic acid (Torrence *et al.*, 1993 *Proc. Natl. Acad. Sci. USA* 90, 1300;

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Silverman et al., 2000, Methods Enzymol., 313, 522-533; Player and Torrence, 1998, Pharmacol. Ther., 78, 55-113).

By "triplex forming oligonucleotides" is meant an oligonucleotide that can bind to a double-stranded polynucleotide, such as DNA, in a sequence-specific manner to form a triple-strand helix. Formation of such triple helix structure has been shown to inhibit transcription of the targeted gene (Duval-Valentin et al., 1992 Proc. Natl. Acad. Sci. USA 89, 504; Fox, 2000, Curr. Med. Chem., 7, 17-37; Praseuth et. al., 2000, Biochim. Biophys. Acta, 1489, 181-206).

By "gene" it is meant a nucleic acid that encodes an RNA, for example, nucleic acid sequences including but not limited to structural genes encoding a polypeptide.

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The term "complementarity" as used herein refers to the ability of a nucleic acid to form hydrogen bond(s) with another nucleic acid sequence by either traditional Watson-Crick or other non-traditional types. In reference to nucleic molecules of the present invention, the binding free energy for a nucleic acid molecule with its target or complementary sequence is sufficient to allow the relevant function of the nucleic acid to proceed, e.g., enzymatic nucleic acid cleavage, antisense or triple helix inhibition. Determination of binding free energies for nucleic acid molecules is well known in the art (see, e.g., Turner et al., 1987, CSH Symp. Quant. Biol. LII pp.123-133; Frier et al., 1986, Proc. Nat. Acad. Sci. USA 83:9373-9377; Turner et al., 1987, J. Am. Chem. Soc. 109:3783-3785). A percent complementarity indicates the percentage of contiguous residues in a nucleic acid molecule which can form hydrogen bonds (e.g., Watson-Crick base pairing) with a second nucleic acid sequence (e.g., 5, 6, 7, 8, 9, 10 out of 10 being 50%, 60%, 70%, 80%, 90%, and 100% complementary). "Perfectly complementary" means that all the contiguous residues of a nucleic acid sequence will hydrogen bond with the same number of contiguous residues in a second nucleic acid sequence.

By "RNA" is meant a molecule comprising at least one ribonucleotide residue. By "ribonucleotide" or "2'-OH" is meant a nucleotide with a hydroxyl group at the 2' position of a β -D-ribo-furanose moiety.

By "nucleic acid decoy molecule", or "decoy" as used herein is meant a nucleic acid molecule that mimics the natural binding domain for a ligand. The decoy therefore competes with the natural binding target for the binding of a specific ligand. For example, it has been shown that over-expression of HIV trans-activation response (TAR) RNA can act as a

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"decoy" and efficiently binds HIV tat protein, thereby preventing it from binding to TAR sequences encoded in the HIV RNA (Sullenger et al., 1990, *Cell*, 63, 601-608).

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By "aptamer" or "nucleic acid aptamer" as used herein is meant a nucleic acid molecule that binds specifically to a target molecule wherein the nucleic acid molecule has sequence that is distinct from sequence recognized by the target molecule in its natural setting. Alternately, an aptamer can be a nucleic acid molecule that binds to a target molecule where the target molecule does not naturally bind to a nucleic acid. The target molecule can be any molecule of interest. For example, the aptamer can be used to bind to a ligand binding domain of a protein, thereby preventing interaction of the naturally occurring ligand with the protein. Similarly, the nucleic acid molecules of the instant invention can bind to VEGFR1 or VEGFR2 receptors to block activity of the receptor. This is a non-limiting example and those in the art will recognize that other embodiments can be readily generated using techniques generally known in the art, see for example Gold *et al.*, US 5,475,096 and 5,270,163; Gold *et al.*, 1995, *Annu. Rev. Biochem.*, 64, 763; Brody and Gold, 2000, *J. Biotechnol.*, 74, 5; Sun, 2000, *Curr. Opin. Mol. Ther.*, 2, 100; Kusser, 2000, *J. Biotechnol.*, 74, 27; Hermann and Patel, 2000, *Science*, 287, 820; and Jayasena, 1999, *Clinical Chemistry*, 45, 1628.

The term "double stranded RNA" or "dsRNA" as used herein refers to a double stranded RNA molecule capable of RNA interference "RNAi", including short interfering RNA "siRNA" see for example Bass, 2001, *Nature*, 411, 428-429; Elbashir et al., 2001, *Nature*, 411, 494-498; and Kreutzer et al., International PCT Publication No. WO 00/44895; Zernicka-Goetz et al., International PCT Publication No. WO 01/36646; Fire, International PCT Publication No. WO 99/32619; Plaetinck et al., International PCT Publication No. WO 00/01846; Mello and Fire, International PCT Publication No. WO 01/29058; Deschamps-Depaillette, International PCT Publication No. WO 99/07409; and Li et al., International PCT Publication No. WO 00/44914.

By "nucleic acid sensor molecule" or "allozyme" as used herein is meant a nucleic acid molecule comprising an enzymatic domain and a sensor domain, where the enzymatic nucleic acid domain's ability to catalyze a chemical reaction is dependent on the interaction with a target signaling molecule, such as a nucleic acid, polynucleotide, oligonucleotide, peptide, polypeptide, or protein, for example VEGF, VEGFR1 and/or VEGFR2. The introduction of chemical modifications, additional functional groups, and/or linkers, to the nucleic acid sensor molecule can provide enhanced catalytic activity of the nucleic acid, and/or improved nuclease/chemical stability of the nucleic acid sensor molecule, and are

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hence within the scope of the present invention (see for example Usman et al., US Patent Application No. 09/877,526, George et al., US Patent Nos. 5,834,186 and 5,741,679, Shih et al., US Patent No. 5,589,332, Nathan et al., US Patent No 5,871,914, Nathan and Ellington, International PCT publication No. WO 00/24931, Breaker et al., International PCT Publication Nos. WO 00/26226 and 98/27104, and Sullenger et al., US Patent Application Serial No. 09/205,520).

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By "sensor component" or "sensor domain" of the nucleic acid sensor molecule as used herein is meant, a nucleic acid sequence (e.g., RNA or DNA or analogs thereof) which interacts with a target signaling molecule, for example a nucleic acid sequence in one or more regions of a target nucleic acid molecule or more than one target nucleic acid molecule, and which interaction causes the enzymatic nucleic acid component of the nucleic acid sensor molecule to either catalyze a reaction or stop catalyzing a reaction. In the presence of target signaling molecule of the invention, such as VEGF, VEGFR1 and/or VEGFR2, the ability of the sensor component, for example, to modulate the catalytic activity of the nucleic acid sensor molecule, is inhibited or diminished. The sensor component can comprise recognition properties relating to chemical or physical signals capable of modulating the nucleic acid sensor molecule via chemical or physical changes to the structure of the nucleic acid sensor molecule. The sensor component can be derived from a naturally occurring nucleic acid binding sequence, for example, RNAs that bind to other nucleic acid sequences in vivo. Alternately, the sensor component can be derived from a nucleic acid molecule (aptamer) which is evolved to bind to a nucleic acid sequence within a target nucleic acid molecule (see for example Gold et al., US 5,475,096 and 5,270,163). The sensor component can be covalently linked to the nucleic acid sensor molecule, or can be non-covalently associated. A person skilled in the art will recognize that all that is required is that the sensor component is able to selectively inhibit the activity of the nucleic acid sensor molecule to catalyze a reaction.

By "target molecule" or "target signaling molecule" is meant a molecule capable of interacting with a nucleic acid sensor molecule, specifically a sensor domain of a nucleic acid sensor molecule, in a manner that causes the nucleic acid sensor molecule to be active or inactive. The interaction of the signaling agent with a nucleic acid sensor molecule can result in modification of the enzymatic nucleic acid component of the nucleic acid sensor molecule via chemical, physical, topological, or conformational changes to the structure of the molecule, such that the activity of the enzymatic nucleic acid component of the nucleic acid sensor molecule is modulated, for example is activated or deactivated. Signaling agents can comprise target signaling molecules such as macromolecules, ligands, small molecules.

metals and ions, nucleic acid molecules including but not limited to RNA and DNA or analogs thereof, proteins, peptides, antibodies, polysaccharides, lipids, sugars, microbial or cellular metabolites, pharmaceuticals, and organic and inorganic molecules in a purified or unpurified form, for example VEGF, VEGFR1 and/or VEGFR2.

The term "triplex forming oligonucleotides" as used herein refers to an oligonucleotide that can bind to a double-stranded DNA in a sequence-specific manner to form a triple-strand helix. Formation of such a triple helix structure has been shown to inhibit transcription of a targeted gene (Duval-Valentin *et al.*, 1992 *Proc. Natl. Acad. Sci. USA* 89, 504; Fox, 2000, *Curr. Med. Chem.*, 7, 17-37; Praseuth *et. al.*, 2000, *Biochim. Biophys. Acta*, 1489, 181-206).

The nucleic acid molecules that modulate the expression of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 specific nucleic acids, represent a novel therapeutic approach to treat or control a variety of angiogenesis related disorders and conditions, including but not limited to tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, or ocular indications such as diabetic retinopathy, or age related macular degeneration, and/or endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), and/or menopausal dysfunction. The nucleic acid molecules that modulate the expression of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 specific nucleic acids also represent a novel approach to control ovulation or embryonic implantation and therefore provide a novel means of birth control.

In one embodiment of the present invention, a nucleic acid molecule of the instant invention can be between 12 and 100 nucleotides in length. An exemplary enzymatic nucleic acid molecule of the invention is shown as Formula I and/or Formula II. For example, enzymatic nucleic acid molecules of the invention are preferably between 15 and 50 nucleotides in length, more preferably between 25 and 40 nucleotides in length, e.g., 34, 36, or 38 nucleotides in length (for example see Jarvis et al., 1996, J. Biol. Chem., 271, 29107-29112). Exemplary DNAzymes of the invention are preferably between 15 and 40 nucleotides in length, more preferably between 25 and 35 nucleotides in length, e.g., 29, 30, 31, or 32 nucleotides in length (see for example Santoro et al., 1998, Biochemistry, 37, 13330-13342; Chartrand et al., 1995, Nucleic Acids Research, 23, 4092-4096). Exemplary antisense molecules of the invention are preferably between 15 and 75 nucleotides in length, more preferably between 20 and 35 nucleotides in length, e.g., 25, 26, 27, or 28 nucleotides in length (see for example Woolf et al., 1992, PNAS., 89, 7305-7309; Milner et al., 1997, Nature Biotechnology, 15, 537-541). Exemplary triplex forming oligonucleotide molecules of the invention are preferably between 10 and 40 nucleotides in length, more preferably

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between 12 and 25 nucleotides in length, e.g., 18, 19, 20, or 21 nucleotides in length (see for example Maher et al., 1990, Biochemistry, 29, 8820-8826; Strobel and Dervan, 1990, Science, 249, 73-75). Those skilled in the art will recognize that all that is required is that the nucleic acid molecule be of length and conformation sufficient and suitable for the nucleic acid molecule to catalyze a reaction contemplated herein. The length of the nucleic acid molecules of the instant invention are not limiting within the general limits stated.

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In a preferred embodiment, a nucleic acid molecule that modulates, for example, down-regulates, VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 replication or expression comprises between 8 and 100 bases complementary to a nucleic acid molecule of VEGFR1 and/or VEGFR2. More preferably, a nucleic acid molecule that modulates VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 replication or expression comprises between 14 and 24 bases complementary to a nucleic acid molecule of VEGFR1 and/or VEGFR2.

The invention provides a method for producing a class of nucleic acid—based gene modulating agents which exhibit a high degree of specificity for the nucleic acid of a desired target. For example, a nucleic acid molecule of the invention is preferably targeted to a highly conserved sequence region of target nucleic acids encoding VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 (specifically VEGF, VEGFR1 and/or VEGFR2 genes) such that specific treatment of a disease or condition can be provided with either one or several nucleic acid molecules of the invention. Such nucleic acid molecules can be delivered exogenously to specific tissue or cellular targets as required. Alternatively, the nucleic acid molecules can be expressed from DNA and/or RNA vectors that are delivered to specific cells.

As used in herein "cell" is used in its usual biological sense, and does not refer to an entire multicellular organism. The cell can, for example, be *in vitro*, e.g., in cell culture, or present in a multicellular organism, including,, e.g., birds, plants and mammals such as humans, cows, sheep, apes, monkeys, swine, dogs, and cats. The cell may be prokaryotic (e.g., bacterial cell) or eukaryotic (e.g., mammalian or plant cell).

By "VEGFR1 and/or VEGFR2 proteins" is meant, protein receptor or a mutant protein derivative thereof, having vascular endothelial growth factor receptor activity, for example, having the ability to bind vascular endothelial growth factor and/or having tyrosine kinase activity.

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By "highly conserved sequence region" is meant, a nucleotide sequence of one or more regions in a target gene does not vary significantly from one generation to the other or from one biological system to the other.

"Angiogenesis" refers to formation of new blood vessels which is an essential process in reproduction, development and wound repair. "Tumor angiogenesis" refers to the induction of the growth of blood vessels from surrounding tissue into a solid tumor. Tumor growth and tumor metastasis are dependent on angiogenesis (for a review see Folkman, 1985 supra; Folkman 1990 J. Natl. Cancer Inst., 82, 4; Folkman and Shing, 1992 J. Biol. Chem. 267, 10931).

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Angiogenesis plays an important role in other diseases such as arthritis wherein new blood vessels have been shown to invade the joints and degrade cartilage (Folkman and Shing, *supra*).

"Retinopathy" refers to inflammation of the retina and/or degenerative condition of the retina which may lead to occlusion of the retina and eventual blindness. In "diabetic retinopathy" angiogenesis causes the capillaries in the retina to invade the vitreous resulting in bleeding and blindness which is also seen in neonatal retinopathy (for a review see Folkman, 1985 supra; Folkman 1990 supra; Folkman and Shing, 1992 supra).

Nucleic acid-based inhibitors of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2, expression are useful for the prevention, treatment, and/or control of angiogenesis related disorders and conditions, including but not limited to, tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, or ocular indications such as diabetic retinopathy, or age related macular degeneration, and/or endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), menopausal dysfunction, and other diseases or conditions that are related to or will respond to the levels of VEGF, VEGFR1 and/or VEGFR2 in a cell or tissue, alone or in combination with other therapies. The reduction of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 expression (specifically VEGF, VEGFR1 and/or VEGFR2 gene RNA levels) and thus reduction in the level of the respective protein relieves, to some degree, the symptoms of the disease or condition. Nucleic acid-based inhibitors of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 expression are also useful as birth control agents, for example by inhibition of ovulation or embryonic uterine implantation.

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The nucleic acid molecules of the invention can be added directly, or can be complexed with cationic lipids, packaged within liposomes, or otherwise delivered to target cells or tissues. The nucleic acid complexes can be locally administered to relevant tissues ex vivo, or in vivo through injection or infusion pump, with or without their incorporation in biopolymers. In preferred embodiments, the nucleic acid inhibitors comprise sequences, which are complementary to polynucleotides, for example DNA and RNA, having VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 sequence.

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Triplex molecules of the invention can be provided targeted to DNA target regions, and containing the DNA equivalent of a target sequence or a sequence complementary to the specified target (substrate) sequence. Antisense molecules typically are complementary to a target sequence along a single contiguous sequence of the antisense molecule. However, in certain embodiments, an antisense molecule can bind to substrate such that the substrate molecule forms a loop, and/or an antisense molecule can bind such that the antisense molecule forms a loop. Thus, the antisense molecule can be complementary to two (or even more) non-contiguous substrate sequences or two (or even more) non-contiguous sequence portions of an antisense molecule can be complementary to a target sequence or both.

By "consists essentially of" is meant that the active nucleic acid molecule of the invention, for example, an enzymatic nucleic acid molecule, contains an enzymatic center or core equivalent to those in the examples, and binding arms able to bind nucleic acid such that cleavage at the target site occurs. Other sequences can be present which do not interfere with such cleavage. Thus, a core region can, for example, include one or more loop, stem-loop structure, or linker which does not prevent enzymatic activity. Thus, a particular region of a nucleic acid molecule of the invention can be such a loop, stem-loop, nucleotide linker, and/or non-nucleotide linker and can be represented generally as sequence "X". Thus, a core region may, for example, include one or more loop or stem-loop structures which do not prevent enzymatic activity. For example, a core sequence for a hammerhead enzymatic nucleic acid can comprise a conserved sequence, such as 5'-CUGAUGAG-3' and 5'-CGAA-3' connected by "X", where X is 5'-GCCGUUAGGC-3' (SEO ID NO 5979), or any other Stem II region known in the art, or a nucleotide and/or non-nucleotide linker. Similarly, for other nucleic acid molecules of the instant invention, such as Inozyme, G-cleaver, amberzyme, zinzyme, DNAzyme, antisense, 2-5A antisense, triplex forming nucleic acid, aptamers, decoy nucleic acids, dsRNA or siRNA, other sequences or non-nucleotide linkers can be present that do not interfere with the function of the nucleic acid molecule.

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Sequence X can be a linker of ≥ 2 nucleotides in length, preferably 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 26, 30, where the nucleotides can preferably be internally base-paired to form a stem of preferably ≥ 2 base pairs. Alternatively or in addition, sequence X can be a non-nucleotide linker. In yet another embodiment, the nucleotide linker X can be a nucleic acid aptamer, such as an ATP aptamer, HIV Rev aptamer (RRE), HIV Tat aptamer (TAR) and others (for a review see Gold et al., 1995, Annu. Rev. Biochem., 64, 763; and Szostak & Ellington, 1993, in The RNA World, ed. Gesteland and Atkins, pp. 511, CSH Laboratory Press). A nucleic acid aptamer includes a nucleic acid sequence capable of interacting with a ligand. The ligand can be any natural or a synthetic molecule, including but not limited to a resin, metabolites, nucleosides, nucleotides, drugs, toxins, transition state analogs, peptides, lipids, proteins, amino acids, nucleic acid molecules, hormones, carbohydrates, receptors, cells, viruses, bacteria and others.

In yet another embodiment, the non-nucleotide linker X is as defined herein. The term "non-nucleotide" as used herein include either abasic nucleotide, polyether, polyamine, polyamide, peptide, carbohydrate, lipid, or polyhydrocarbon compounds. Specific examples include those described by Seela and Kaiser, Nucleic Acids Res. 1990, 18:6353 and Nucleic Acids Res. 1987, 15:3113; Cload and Schepartz, J. Am. Chem. Soc. 1991, 113:6324; Richardson and Schepartz, J. Am. Chem. Soc. 1991, 113:5109; Ma et al., Nucleic Acids Res. 1993, 21:2585 and Biochemistry 1993, 32:1751; Durand et al., Nucleic Acids Res. 1990, 18:6353; McCurdy et al., Nucleosides & Nucleotides 1991, 10:287; Jschke et al., Tetrahedron Lett. 1993, 34:301; Ono et al., Biochemistry 1991, 30:9914; Arnold et al., International Publication No. WO 89/02439; Usman et al., International Publication No. WO 95/06731; Dudycz et al., International Publication No. WO 95/11910 and Ferentz and Verdine, J. Am. Chem. Soc. 1991, 113:4000, all hereby incorporated by reference herein.

A "non-nucleotide" further means any group or compound which can be incorporated into a nucleic acid chain in the place of one or more nucleotide units, including either sugar and/or phosphate substitutions, and allows the remaining bases to exhibit their enzymatic activity. The group or compound can be abasic in that it does not contain a commonly recognized nucleotide base, such as adenosine, guanine, cytosine, uracil or thymine. Thus, in one embodiment, the invention features an enzymatic nucleic acid molecule having one or more non-nucleotide moieties, and having enzymatic activity to cleave an RNA or DNA molecule.

In another aspect of the invention, nucleic acid molecules that interact with target nucleic acid molecules and down-regulate VEGF and/or VEGFr, such as VEGFR1 and/or

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VEGFR2 (specifically VEGF, VEGFR1 and/or VEGFR2 gene) activity are expressed from transcription units inserted into DNA or RNA vectors. The recombinant vectors are preferably DNA plasmids or viral vectors. Enzymatic nucleic acid molecule or antisense expressing viral vectors can be constructed based on, but not limited to, adeno-associated virus, retrovirus, adenovirus, or alphavirus. The recombinant vectors capable of expressing the enzymatic nucleic acid molecules or antisense are delivered as described above, and persist in target cells. Alternatively, viral vectors can be used that provide for transient expression of enzymatic nucleic acid molecules or antisense. Such vectors can be repeatedly administered as necessary. Once expressed, the enzymatic nucleic acid molecules or antisense bind to the target nucleic acid and down-regulate its function or expression. Delivery of enzymatic nucleic acid molecule or antisense expressing vectors can be systemic, such as by intravenous or intramuscular administration, by administration to target cells explanted from the patient followed by reintroduction into the patient, or by any other means that would allow for introduction into the desired target cell. Antisense DNA can be expressed via the use of a single stranded DNA intracellular expression vector.

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By "vectors" is meant any nucleic acid- and/or viral-based technique used to deliver a desired nucleic acid.

By "subject" or "patient" is meant an organism, which is a donor or recipient of explanted cells, or the cells themselves. "Subject" or "Patient" also refers to an organism to which the nucleic acid molecules of the invention can be administered. Preferably, a subject or patient is a mammal or mammalian cells. More preferably, a subject or patient is a human or human cells.

By "enhanced enzymatic activity" is meant to include activity measured in cells and/or in vivo where the activity is a reflection of both the catalytic activity and the stability of the nucleic acid molecules of the invention. In this invention, the product of these properties can be increased *in vivo* compared to an all RNA enzymatic nucleic acid or all DNA enzyme. In some cases, the activity or stability of the nucleic acid molecule can be decreased (i.e., less than ten-fold), but the overall activity of the nucleic acid molecule is enhanced, *in vivo*.

The nucleic acid molecules of the instant invention, individually, or in combination or in conjunction with other drugs, can be used to treat diseases or conditions discussed above. For example, to treat a disease or condition associated with the levels of VEGFR1 and/or VEGFR2, the patient can be treated, or other appropriate cells can be treated, as is evident to those skilled in the art, individually or in combination with one or more drugs under conditions suitable for the treatment.

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In a further embodiment, the described molecules of the invention can be used in combination with other known treatments to treat conditions or diseases discussed above. For example, the described molecules can be used in combination with one or more known therapeutic agents to treat angiogenesis related disorders and conditions, including but not limited to tumor angiogenesis, cancers such as breast cancer, lung cancer, colorectal cancer, renal cancer, pancreatic cancer, or melanoma, or ocular indications such as diabetic retinopathy, or age related macular degeneration, and/or endometriosis, birth control, endometrial tumors, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), menopausal dysfunction, endometrial carcinoma, and/or other diseases or conditions which respond to the modulation of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 expression.

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Other features and advantages of the invention will be apparent from the following description of the preferred embodiments thereof, and from the claims.

Brief Description of the Drawings

Figure 1 shows a secondary structure model of ANGIOZYME $^{\text{TM}}$ ribozyme bound to its RNA target.

Figure 2 shows a time course of inhibition of primary tumor growth following systemic administration of ANGIOZYMETM in the LLC mouse model.

Figure 3 shows inhibition of primary tumor growth following systemic administration of ANGIOZYMETM according to a certain dosing regimen in the LLC mouse model.

Figure 4 shows a dose-dependent inhibition of tumor metastases following systemic administration of ANGIOZYMETM in a mouse colorectal model.

Figure 5 is a graph showing the plasma concentration profile of ANGIOZYMETM after a single subcutaneous (SC) dose of 10, 30, 100 or 300 mg/m².

Figure 6 shows examples of chemically stabilized ribozyme motifs. HH Rz, represents hammerhead ribozyme motif (Usman *et al.*, 1996, *Curr. Op. Struct. Bio.*, 1, 527); NCH Rz represents the NCH ribozyme motif (Ludwig *et al.*, International PCT Publication No. WO 98/58058 and US Patent Application Serial No. 08/878,640); G-Cleaver, represents G-cleaver ribozyme motif (Kore *et al.*, 1998, *Nucleic Acids Research* 26, 4116-4120, Eckstein *et*

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al., US 6,127,173). N or n, represent independently a nucleotide which can be same or different and have complementarity to each other; rI, represents ribo-Inosine nucleotide; arrow indicates the site of cleavage within the target. Position 4 of the HH Rz and the NCH Rz is shown as having 2'-C-allyl modification, but those skilled in the art will recognize that this position can be modified with other modifications well known in the art, so long as such modifications do not significantly inhibit the activity of the ribozyme.

Figure 7 shows an example of a Zinzyme A ribozyme motif that is chemically stabilized (see for example Beigelman *et al.*, International PCT publication No. WO 99/55857 and US Patent Application Serial No. 09/918,728).

Figure 8 shows an example of a DNAzyme motif described by Santoro *et al.*, 1997, *PNAS*, 94, 4262 and Joyce *et al.*, US 5,807,718.

Figure 9 shows data demonstrating the inhibition of soluble VEGFR1 in a clinical study using ANGIOZYME (SEQ ID NO: 5977).

Figure 10 shows an generalized outline for the mouse model of proliferative retinopathy showing the points of ribozyme administration.

Figure 11 shows a graph demonstrating the efficacy of a VEGF-receptor-targeted enzymatic nucleic acid molecule in a mouse model of proliferative retinopathy.

Detailed Description of the Invention

Nucleic Acid Molecules and Mechanism of Action

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Enzymatic Nucleic Acid: Several varieties of naturally-occurring enzymatic nucleic acids are presently known. In addition, several in vitro selection (evolution) strategies (Orgel, 1979, Proc. R. Soc. London, B 205, 435) have been used to evolve new nucleic acid catalysts capable of catalyzing cleavage and ligation of phosphodiester linkages (Joyce, 1989, Gene, 82, 83-87; Beaudry et al., 1992, Science 257, 635-641; Joyce, 1992, Scientific American 267, 90-97; Breaker et al., 1994, TIBTECH 12, 268; Bartel et al., 1993, Science 261:1411-1418; Szostak, 1993, TIBS 17, 89-93; Kumar et al., 1995, FASEB J., 9, 1183; Breaker, 1996, Curr. Op. Biotech., 7, 442; Santoro et al., 1997, Proc. Natl. Acad. Sci., 94, 4262; Tang et al., 1997, RNA 3, 914; Nakamaye & Eckstein, 1994, supra; Long & Uhlenbeck, 1994, supra; Ishizaka et al., 1995, supra; Vaish et al., 1997, Biochemistry 36, 6495; all of these are incorporated by reference herein). Each can catalyze a series of reactions including the hydrolysis of

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phosphodiester bonds in trans (and thus can cleave other nucleic acid molecules) under physiological conditions.

The enzymatic nature of an enzymatic nucleic acid molecule has significant advantages, one advantage being that the concentration of enzymatic nucleic acid molecule necessary to affect a therapeutic treatment is lower. This advantage reflects the ability of the enzymatic nucleic acid molecule to act enzymatically. Thus, a single enzymatic nucleic acid molecule is able to cleave many molecules of target nucleic acid. In addition, the enzymatic nucleic acid molecule is a highly specific inhibitor, with the specificity of inhibition depending not only on the base-pairing mechanism of binding to the target nucleic acid, but also on the mechanism of target nucleic acid cleavage. Single mismatches, or base-substitutions, near the site of cleavage can be chosen to completely eliminate catalytic activity of a enzymatic nucleic acid molecule.

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Nucleic acid molecules having an endonuclease enzymatic activity are able to repeatedly cleave other separate nucleic acid molecules in a nucleotide base sequence-specific manner. With the proper design, such enzymatic nucleic acid molecules can be targeted to RNA transcripts, and achieve efficient cleavage in vitro (Zaug et al., 324, Nature 429 1986; Uhlenbeck, 1987 Nature 328, 596; Kim et al., 84 Proc. Natl. Acad. Sci. USA 8788, 1987; Dreyfus, 1988, Einstein Quart. J. Bio. Med., 6, 92; Haseloff and Gerlach, 334 Nature 585, 1988; Cech, 260 JAMA 3030, 1988; and Jefferies et al., 17 Nucleic Acids Research 1371, 1989; Santoro et al., 1997 supra).

Because of their sequence specificity, trans-cleaving enzymatic nucleic acid molecules can be used as therapeutic agents for human disease (Usman & McSwiggen, 1995 Ann. Rep. Med. Chem. 30, 285-294; Christoffersen and Marr, 1995 J. Med. Chem. 38, 2023-2037). Enzymatic nucleic acid molecules can be designed to cleave specific nucleic acid targets within the background of cellular nucleic acid. Such a cleavage event renders the nucleic acid non-functional and abrogates protein expression from that nucleic acid. In this manner, synthesis of a protein associated with a disease state can be selectively inhibited (Warashina et al., 1999, Chemistry and Biology, 6, 237-250).

Enzymatic nucleic acid molecules of the invention that are allosterically regulated ("allozymes") can be used to down-regulate VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2, expression. These allosteric enzymatic nucleic acids or allozymes (see for example Usman *et al.*, US Patent Application No. 09/877,526, George *et al.*, US Patent Nos. 5,834,186 and 5,741,679, Shih *et al.*, US Patent No. 5,589,332, Nathan *et al.*, US Patent No 5,871,914, Nathan and Ellington, International PCT publication No. WO 00/24931, Breaker

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et al., International PCT Publication Nos. WO 00/26226 and 98/27104, and Sullenger et al., US Patent Application Serial No. 09/205,520) are designed to respond to a signaling agent, for example, mutant VEGFR1 and/or VEGFR2 protein, wild-type VEGFR1 and/or VEGFR2 protein, mutant VEGFR1 and/or VEGFR2 RNA, wild-type VEGFR1 and/or VEGFR2 RNA, other proteins and/or RNAs involved in VEGF signal transduction, compounds, metals, polymers, molecules and/or drugs that are targeted to VEGFR1 and/or VEGFR2 expression, which in turn modulates the activity of the enzymatic nucleic acid molecule. In response to interaction with a predetermined signaling agent, the activity of the allosteric enzymatic nucleic acid is activated or inhibited such that the expression of a particular target is selectively down-regulated. The target can comprise wild-type VEGFR1 and/or VEGFR2, mutant VEGFR1 and/or VEGFR2, and/or a predetermined component of the VEGF signal transduction pathway. In a specific example, allosteric enzymatic nucleic acid molecules that are activated by interaction with a RNA encoding VEGF protein are used as therapeutic agents in vivo. The presence of RNA encoding the VEGF protein activates the allosteric enzymatic nucleic acid molecule that subsequently cleaves the RNA encoding a VEGFR1 and/or VEGFR2 protein resulting in the inhibition of VEGFR1 and/or VEGFR2 protein expression.

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In another non-limiting example, an allozyme can be activated by a VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 protein, peptide, or mutant polypeptide that causes the allozyme to inhibit the expression of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 genes, by, for example, cleaving RNA encoded by VEGF, VEGFR1 and/or VEGFR2 gene. In this non-limiting example, the allozyme acts as a decoy to inhibit the function of VEGF, VEGFR1 and/or VEGFR2 and also inhibit the expression of VEGF, VEGFR1 and/or VEGFR2 protein.

Antisense: Antisense molecules can be modified or unmodified RNA, DNA, or mixed polymer oligonucleotides and primarily function by specifically binding to matching sequences resulting in inhibition of peptide synthesis (Wu-Pong, Nov 1994, *BioPharm*, 20-33). The antisense oligonucleotide binds to target RNA by Watson Crick base-pairing and blocks gene expression by preventing ribosomal translation of the bound sequences either by steric blocking or by activating RNase H enzyme. Antisense molecules can also alter protein synthesis by interfering with RNA processing or transport from the nucleus into the cytoplasm (Mukhopadhyay & Roth, 1996, *Crit. Rev. in Oncogenesis* 7, 151-190).

In addition, binding of single stranded DNA to RNA can result in nuclease degradation of the heteroduplex (Wu-Pong, *supra*; Crooke, *supra*). To date, the only backbone modified

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DNA chemistry which act as substrates for RNase H are phosphorothioates, phosphorodithioates, and borontrifluoridates. Recently it has been reported that 2'-arabino and 2'-fluoro arabino- containing oligos can also activate RNase H activity.

A number of antisense molecules have been described that utilize novel configurations of chemically modified nucleotides, secondary structure, and/or RNase H substrate domains (Woolf *et al.*, International PCT Publication No. WO 98/13526; Thompson *et al.*, International PCT Publication No. WO 99/54459; Hartmann *et al.*, USSN 60/101,174 which was filed on September 21, 1998) all of these are incorporated by reference herein in their entirety.

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In addition, antisense deoxyoligoribonucleotides can be used to target RNA by means of DNA-RNA interactions, thereby activating RNase H, which digests the target RNA in the duplex. Antisense DNA can be expressed via the use of a single stranded DNA intracellular expression vector or equivalents and variations thereof.

<u>Triplex Forming Oligonucleotides (TFO)</u>: Single stranded DNA can be designed to bind to genomic DNA in a sequence specific manner. TFOs are comprised of pyrimidine-rich oligonucleotides which bind DNA helices through Hoogsteen Base-pairing (Wu-Pong, *supra*). The resulting triple helix composed of the DNA sense, DNA antisense, and TFO disrupts RNA synthesis by RNA polymerase. The TFO mechanism can result in gene expression or cell death since binding can be irreversible (Mukhopadhyay & Roth, *supra*).

2-5A Antisense Chimera: The 2-5A system is an interferon mediated mechanism for RNA degradation found in higher vertebrates (Mitra et al., 1996, Proc Nat Acad Sci USA 93, 6780-6785). Two types of enzymes, 2-5A synthetase and RNase L, are required for RNA cleavage. The 2-5A synthetases require double stranded RNA to form 2'-5' oligoadenylates (2-5A). 2-5A then acts as an allosteric effector for utilizing RNase L which has the ability to cleave single stranded RNA. The ability to form 2-5A structures with double stranded RNA makes this system particularly useful for inhibition of viral replication.

(2'-5') oligoadenylate structures can be covalently linked to antisense molecules to form chimeric oligonucleotides capable of RNA cleavage (Torrence, *supra*). These molecules putatively bind and activate a 2-5A dependent RNase, the oligonucleotide/enzyme complex then binds to a target RNA molecule which can then be cleaved by the RNase enzyme.

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RNAi: Double-stranded RNAs can suppress expression of homologous genes through an evolutionarily conserved process named RNA interference (RNAi) or post-transcriptional gene silencing (PTGS). One mechanism underlying silencing is the degradation of target mRNAs by an RNP complex, which contains short interfering RNAs (siRNAs) as guides to substrate selection. Short interfering RNAs are typically 21 to 23 nucleotides in length. A bidentate nuclease called Dicer has been implicated as the protein responsible for siRNA production. For example, a double-stranded RNA (dsRNA) matching a gene sequence is synthesized *in vitro* and introduced into a cell. The dsRNA feeds into a biological pathway and is broken into short pieces of short interfering (si) RNAs. With the help of cellular enzymes such as Dicer, the siRNA triggers the degradation of the messenger RNA that matches its sequence (see for example Tuschl *et al.*, International PCT Publication No. WO 01/75164; Bass, 2001, *Nature*, 411, 428-429; Elbashir et al., 2001, *Nature*, 411, 494-498; and Kreutzer *et al.*, International PCT Publication No. WO 00/44895).

Target sites

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Targets for useful nucleic acid molecules of the invention, such as enzymatic nucleic acid molecules, dsRNA, and antisense nucleic acids can be determined as disclosed in Draper et al., WO 93/23569; Sullivan et al., WO 93/23057; Thompson et al., WO 94/02595; Draper et al., WO 95/04818; McSwiggen et al., US Patent No. 5,525,468, and hereby incorporated by reference herein in totality. Other examples include the following PCT applications, which concern inactivation of expression of disease-related genes; WO 95/23225, WO 95/13380, WO 94/02595, incorporated by reference herein. Rather than repeat the guidance provided in those documents here, below are provided specific examples of such methods. not limiting to those in the art. Enzymatic nucleic acid molecules and antisense to such targets are designed as described in those applications and synthesized to be tested in vitro and in vivo, as also described. The sequences of human VEGF, VEGFR1 and/or VEGFR2 RNAs are screened for optimal nucleic acid target sites using a computer-folding algorithm. Potential nucleic acid binding/cleavage sites are identified. While human sequences can be screened and nucleic acid molecules thereafter designed, as discussed in Stinchcomb et al., WO 95/23225, mouse targeted enzymatic nucleic acid molecules can be useful to test efficacy of action of the nucleic acid molecule prior to testing in humans.

Nucleic acid molecule binding/cleavage sites are identified, for example enzymatic nucleic acid, antisense, and dsRNA mediated binding sites are chosen. For enzymatic nucleic acid molecules of the invention, the nucleic acid molecules are individually analyzed by computer folding (Jaeger et al., 1989 Proc. Natl. Acad. Sci. USA, 86, 7706) to assess whether

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the sequences fold into the appropriate secondary structure. Those nucleic acid molecules with unfavorable intramolecular interactions such as between the binding arms and the catalytic core can be eliminated from consideration. Varying binding arm lengths can be chosen to optimize activity.

Nucleic acids, such as antisense, RNAi, and/or enzymatic nucleic acid molecule binding/cleavage sites are identified and are designed to anneal to various sites in the nucleic acid target. The binding arms of enzymatic nucleic acid molecules of the invention are complementary to the target site sequences described above. Antisense and RNAi sequences are designed to have partial or complete complementarity to the nucleic acid target. The nucleic acid molecules can be chemically synthesized. The method of synthesis used follows the procedure for normal DNA/RNA synthesis as described below and in Usman et al., 1987 J. Am. Chem. Soc., 109, 7845; Scaringe et al., 1990 Nucleic Acids Res., 18, 5433; and Wincott et al., 1995 Nucleic Acids Res. 23, 2677-2684; Caruthers et al., 1992, Methods in Enzymology 211,3-19.

15 Synthesis of Nucleic acid Molecules

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Synthesis of nucleic acids greater than 100 nucleotides in length is difficult using automated methods, and the therapeutic cost of such molecules is prohibitive. In this invention, small nucleic acid motifs ("small refers to nucleic acid motifs less than about 100 nucleotides in length, preferably less than about 80 nucleotides in length, and more preferably less than about 50 nucleotides in length; *e.g.*, antisense oligonucleotides, enzymatic nucleic acids, aptamers, allozymes, decoys, siRNA etc.) are preferably used for exogenous delivery. The simple structure of these molecules increases the ability of the nucleic acid to invade targeted regions of RNA structure. Exemplary molecules of the instant invention are chemically synthesized, and others can similarly be synthesized.

DNA Oligonucleotides are synthesized using protocols known in the art as described in Caruthers *et al.*, 1992, *Methods in Enzymology* 211, 3-19, Thompson *et al.*, International PCT Publication No. WO 99/54459, Wincott *et al.*, 1995, *Nucleic Acids Res.* 23, 2677-2684, Wincott *et al.*, 1997, *Methods Mol. Bio.*, 74, 59, Brennan *et al.*, 1998, *Biotechnol Bioeng.*, 61, 33-45, and Brennan, US patent No. 6,001,311. All of these references are incorporated herein by reference. The synthesis of oligonucleotides makes use of common nucleic acid protecting and coupling groups, such as dimethoxytrityl at the 5'-end, and phosphoramidites at the 3'-end. In a non-limiting example, small scale syntheses are conducted on a 394 Applied Biosystems, Inc. synthesizer using a 0.2 μmol scale protocol with a 2.5 min coupling step for 2'-O-methylated nucleotides and a 45 sec coupling step for 2'-deoxy nucleotides. **Table II**

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outlines the amounts and the contact times of the reagents used in the synthesis cycle. Alternatively, syntheses at the 0.2 µmol scale can be performed on a 96-well plate synthesizer, such as the instrument produced by Protogene (Palo Alto, CA) with minimal modification to the cycle. A 33-fold excess (60 μ L of 0.11 M = 6.6 μ mol) of 2'-O-methyl phosphoramidite and a 105-fold excess of S-ethyl tetrazole (60 μ L of 0.25 M = 15 μ mol) can be used in each coupling cycle of 2'-O-methyl residues relative to polymer-bound 5'hydroxyl. A 22-fold excess (40 μ L of 0.11 M = 4.4 μ mol) of deoxy phosphoramidite and a 70-fold excess of S-ethyl tetrazole (40 µL of 0.25 M = 10 µmol) can be used in each coupling cycle of deoxy residues relative to polymer-bound 5'-hydroxyl. Average coupling yields on the 394 Applied Biosystems, Inc. synthesizer, determined by colorimetric quantitation of the trityl fractions, are typically 97.5-99%. Other oligonucleotide synthesis reagents for the 394 Applied Biosystems, Inc. synthesizer include; detritylation solution is 3% TCA in methylene chloride (ABI); capping is performed with 16% N-methyl imidazole in THF (ABI) and 10% acetic anhydride/10% 2,6-lutidine in THF (ABI); and oxidation solution is 16.9 mM I₂, 49 mM pyridine, 9% water in THF (PERSEPTIVETM). Burdick & Jackson Synthesis Grade acetonitrile is used directly from the reagent bottle. S-Ethyltetrazole solution (0.25 M in acetonitrile) is made up from the solid obtained from American International Chemical, Inc. Alternately, for the introduction of phosphorothioate linkages, Beaucage reagent (3H-1.2-Benzodithiol-3-one 1,1-dioxide, 0.05 M in acetonitrile) is used.

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Deprotection of the DNA polynucleotides is performed as follows: the polymer-bound trityl-on oligoribonucleotide is transferred to a 4 mL glass screw top vial and suspended in a solution of 40% aq. methylamine (1 mL) at 65 °C for 10 min. After cooling to -20 °C, the supernatant is removed from the polymer support. The support is washed three times with 1.0 mL of EtOH:MeCN:H2O/3:1:1, vortexed and the supernatant is then added to the first supernatant. The combined supernatants, containing the oligoribonucleotide, are dried to a white powder.

The method of synthesis used for RNA oligonucleotides including certain nucleic acid molecules of the invention follows the procedure as described in Usman *et al.*, 1987, *J. Am. Chem. Soc.*, 109, 7845; Scaringe *et al.*, 1990, *Nucleic Acids Res.*, 18, 5433; and Wincott *et al.*, 1995, *Nucleic Acids Res.* 23, 2677-2684 Wincott *et al.*, 1997, *Methods Mol. Bio.*, 74, 59, and makes use of common nucleic acid protecting and coupling groups, such as dimethoxytrityl at the 5'-end, and phosphoramidites at the 3'-end. In a non-limiting example, small scale syntheses are conducted on a 394 Applied Biosystems, Inc. synthesizer using a 0.2 µmol scale protocol with a 7.5 min coupling step for alkylsilyl protected nucleotides and a 2.5 min coupling step for 2'-O-methylated nucleotides. **Table II** outlines the amounts and the

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contact times of the reagents used in the synthesis cycle. Alternatively, syntheses at the 0.2 µmol scale can be done on a 96-well plate synthesizer, such as the instrument produced by Protogene (Palo Alto, CA) with minimal modification to the cycle. A 33-fold excess (60 µL of 0.11 M = 6.6 μ mol) of 2'-O-methyl phosphoramidite and a 75-fold excess of S-ethyl tetrazole (60 μ L of 0.25 M = 15 μ mol) can be used in each coupling cycle of 2'-O-methyl residues relative to polymer-bound 5'-hydroxyl. A 66-fold excess (120 μ L of 0.11 M = 13.2 µmol) of alkylsilyl (ribo) protected phosphoramidite and a 150-fold excess of S-ethyl tetrazole (120 μ L of 0.25 M = 30 μ mol) can be used in each coupling cycle of ribo residues relative to polymer-bound 5'-hydroxyl. Average coupling yields on the 394 Applied Biosystems, Inc. synthesizer, determined by colorimetric quantitation of the trityl fractions, are typically 97.5-99%. Other oligonucleotide synthesis reagents for the 394 Applied Biosystems, Inc. synthesizer include; detritylation solution is 3% TCA in methylene chloride (ABI); capping is performed with 16% N-methyl imidazole in THF (ABI) and 10% acetic anhydride/10% 2,6-lutidine in THF (ABI); oxidation solution is 16.9 mM I₂, 49 mM pyridine, 9% water in THF (PERSEPTIVE™). Burdick & Jackson Synthesis Grade acetonitrile is used directly from the reagent bottle. S-Ethyltetrazole solution (0.25 M in acetonitrile) is made up from the solid obtained from American International Chemical, Inc. Alternately, for the introduction of phosphorothioate linkages, Beaucage reagent (3H-1,2-Benzodithiol-3-one 1,1dioxide0.05 M in acetonitrile) is used.

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Deprotection of the RNA is performed using either a two-pot or one-pot protocol. For the two-pot protocol, the polymer-bound trityl-on oligoribonucleotide is transferred to a 4 mL glass screw top vial and suspended in a solution of 40% aq. methylamine (1 mL) at 65 °C for 10 min. After cooling to -20 °C, the supernatant is removed from the polymer support. The support is washed three times with 1.0 mL of EtOH:MeCN:H2O/3:1:1, vortexed and the supernatant is then added to the first supernatant. The combined supernatants, containing the oligoribonucleotide, are dried to a white powder. The base deprotected oligoribonucleotide is resuspended in anhydrous TEA/HF/NMP solution (300 μ L of a solution of 1.5 mL N-methylpyrrolidinone, 750 μ L TEA and 1 mL TEA•3HF to provide a 1.4 M HF concentration) and heated to 65 °C. After 1.5 h, the oligomer is quenched with 1.5 M NH₄HCO₃.

Alternatively, for the one-pot protocol, the polymer-bound trityl-on oligoribonucleotide is transferred to a 4 mL glass screw top vial and suspended in a solution of 33% ethanolic methylamine/DMSO: 1/1 (0.8 mL) at 65 °C for 15 min. The vial is brought to r.t. TEA•3HF (0.1 mL) is added and the vial is heated at 65 °C for 15 min. The sample is cooled at -20 °C and then quenched with 1.5 M NH₄HCO₃.

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For purification of the trityl-on oligomers, the quenched NH₄HCO₃ solution is loaded onto a C-18 containing cartridge that had been prewashed with acetonitrile followed by 50 mM TEAA. After washing the loaded cartridge with water, the RNA is detritylated with 0.5% TFA for 13 min. The cartridge is then washed again with water, salt exchanged with 1 M NaCl and washed with water again. The oligonucleotide is then eluted with 30% acetonitrile.

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Inactive hammerhead ribozymes or binding attenuated control (BAC) oligonucleotides) are synthesized by substituting a U for G5 and a U for A14 (numbering from Hertel, K. J., et al., 1992, Nucleic Acids Res., 20, 3252). Similarly, one or more nucleotide substitutions can be introduced in other enzymatic nucleic acid molecules to inactivate the molecule and such molecules can serve as a negative control.

The average stepwise coupling yields are typically >98% (Wincott *et al.*, 1995 *Nucleic Acids Res.* 23, 2677-2684). Those of ordinary skill in the art will recognize that the scale of synthesis can be adapted to be larger or smaller than the example described above including but not limited to 96 well format, all that is important is the ratio of chemicals used in the reaction.

Alternatively, the nucleic acid molecules of the present invention can be synthesized separately and joined together post-synthetically, for example by ligation (Moore et al., 1992, Science 256, 9923; Draper et al., International PCT publication No. WO 93/23569; Shabarova et al., 1991, Nucleic Acids Research 19, 4247; Bellon et al., 1997, Nucleosides & Nucleotides, 16, 951; Bellon et al., 1997, Bioconjugate Chem. 8, 204).

Preferably, the nucleic acid molecules of the present invention are modified extensively to enhance stability by modification with nuclease resistant groups, for example, 2'-amino, 2'-C-allyl, 2'-flouro, 2'-O-methyl, 2'-H (for a review see Usman and Cedergren, 1992, TIBS 17, 34; Usman et al., 1994, Nucleic Acids Symp. Ser. 31, 163). Ribozymes are purified by gel electrophoresis using general methods or are purified by high pressure liquid chromatography (HPLC; See Wincott et al., Supra, the totality of which is hereby incorporated herein by reference) and are re-suspended in water.

Optimizing Activity of the nucleic acid molecule of the invention.

Chemically synthesizing nucleic acid molecules with modifications (base, sugar and/or phosphate) that prevent their degradation by serum ribonucleases can increase their potency (see e.g., Eckstein et al., International Publication No. WO 92/07065; Perrault et al., 1990 Nature 344, 565; Pieken et al., 1991, Science 253, 314; Usman and Cedergren, 1992, Trends

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in Biochem. Sci. 17, 334; Usman et al., International Publication No. WO 93/15187; and Rossi et al., International Publication No. WO 91/03162; Sproat, US Patent No. 5,334,711; Gold et al., US 6,300,074; and Burgin et al., supra; all of which are incorporated by reference herein). Modifications which enhance their efficacy in cells, and removal of bases from nucleic acid molecules to shorten oligonucleotide synthesis times and reduce chemical requirements are desired. (All these publications are hereby incorporated by reference herein).

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There are several examples in the art describing sugar, base and phosphate modifications that can be introduced into nucleic acid molecules with significant enhancement in their nuclease stability and efficacy. For example, oligonucleotides are modified to enhance stability and/or enhance biological activity by modification with nuclease resistant groups, for example, 2'-amino, 2'-C-allyl, 2'-flouro, 2'-O-methyl, 2'-H, nucleotide base modifications (for a review see Usman and Cedergren, 1992, TIBS, 17, 34; Usman et al., 1994, Nucleic Acids Symp. Ser. 31, 163; Burgin et al., 1996, Biochemistry, 35, 14090). Sugar modification of nucleic acid molecules have been extensively described in the art (see Eckstein et al., International Publication PCT No. WO 92/07065; Perrault et al. Nature. 1990, 344, 565-568; Pieken et al. Science, 1991, 253, 314-317; Usman and Cedergren, Trends in Biochem. Sci., 1992, 17, 334-339; Usman et al. International Publication PCT No. WO 93/15187; Sproat, US Patent No. 5,334,711 and Beigelman et al., 1995, J. Biol. Chem., 270, 25702; Beigelman et al., International PCT publication No. WO 97/26270; Beigelman et al., US Patent No. 5,716,824; Usman et al., US patent No. 5,627,053; Woolf et al., International PCT Publication No. WO 98/13526; Thompson et al., USSN 60/082,404 which was filed on April 20, 1998; Karpeisky et al., 1998, Tetrahedron Lett., 39, 1131; Earnshaw and Gait, 1998, Biopolymers (Nucleic acid Sciences), 48, 39-55; Verma and Eckstein, 1998, Annu. Rev. Biochem., 67, 99-134; and Burlina et al., 1997, Bioorg. Med. Chem., 5, 1999-2010; all of the references are hereby incorporated in their totality by reference herein). Such publications describe general methods and strategies to determine the location of incorporation of sugar, base and/or phosphate modifications and the like into ribozymes without inhibiting catalysis, and are incorporated by reference herein. In view of such teachings, similar modifications can be used as described herein to modify the nucleic acid molecules of the instant invention.

While chemical modification of oligonucleotide internucleotide linkages with phosphorothicate, phosphorothicate, and/or 5'-methylphosphonate linkages improves stability, too many of these modifications can cause some toxicity. Therefore when designing nucleic acid molecules the amount of these internucleotide linkages should be minimized.

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The reduction in the concentration of these linkages should lower toxicity resulting in increased efficacy and higher specificity of these molecules.

Nucleic acid molecules having chemical modifications that maintain or enhance activity are provided. Such nucleic acid is also generally more resistant to nucleases than unmodified nucleic acid. Thus, in a cell and/or *in vivo* the activity may not be significantly lowered. Therapeutic nucleic acid molecules delivered exogenously are optimally stable within cells until translation of the target RNA has been inhibited long enough to reduce the levels of the undesirable protein. This period of time varies between hours to days depending upon the disease state. Clearly, nucleic acid molecules must be resistant to nucleases in order to function as effective intracellular therapeutic agents. Improvements in the chemical synthesis of RNA and DNA (Wincott *et al.*, 1995 *Nucleic Acids Res.* 23, 2677; Caruthers *et al.*, 1992, *Methods in Enzymology* 211,3-19 (incorporated by reference herein) have expanded the ability to modify nucleic acid molecules by introducing nucleotide modifications to enhance their nuclease stability as described above.

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In one embodiment, nucleic acid molecules of the invention include one or more G-clamp nucleotides. A G-clamp nucleotide is a modified cytosine analog wherein the modifications confer the ability to hydrogen bond both Watson-Crick and Hoogsteen faces of a complementary guanine within a duplex, see for example Lin and Matteucci, 1998, *J. Am. Chem. Soc.*, 120, 8531-8532. A single G-clamp analog substitution within an oligonucleotide can result in substantially enhanced helical thermal stability and mismatch discrimination when hybridized to complementary oligonucleotides. The inclusion of such nucleotides in nucleic acid molecules of the invention results in both enhanced affinity and specificity to nucleic acid targets. In another embodiment, nucleic acid molecules of the invention include one or more LNA "locked nucleic acid" nucleotides such as a 2', 4'-C mythylene bicyclo nucleotide (see for example Wengel *et al.*, International PCT Publication No. WO 00/66604 and WO 99/14226).

In another embodiment, the invention features conjugates and/or complexes of nucleic acid molecules targeting VEGF receptors such as VEGFR1 and/or VEGFR2. Such conjugates and/or complexes can be used to facilitate delivery of molecules into a biological system, such as cells. The conjugates and complexes provided by the instant invention can impart therapeutic activity by transferring therapeutic compounds across cellular membranes, altering the pharmacokinetics, and/or modulating the localization of nucleic acid molecules of the invention. The present invention encompasses the design and synthesis of novel conjugates and complexes for the delivery of molecules, including but not limited to small

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molecules, lipids, phospholipids, nucleosides, nucleotides, nucleic acids, antibodies, toxins, negatively charged polymers and other polymers, for example proteins, peptides, hormones, carbohydrates, polyethylene glycols, or polyamines, across cellular membranes. In general, the transporters described are designed to be used either individually or as part of a multicomponent system, with or without degradable linkers. These compounds are expected to improve delivery and/or localization of nucleic acid molecules of the invention into a number of cell types originating from different tissues, in the presence or absence of serum (see Sullenger and Cech, US 5,854,038). Conjugates of the molecules described herein can be attached to biologically active molecules via linkers that are biodegradable, such as biodegradable nucleic acid linker molecules.

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The term "biodegradable nucleic acid linker molecule" as used herein, refers to a nucleic acid molecule that is designed as a biodegradable linker to connect one molecule to another molecule, for example, a biologically active molecule. The stability of the biodegradable nucleic acid linker molecule can be modulated by using various combinations of ribonucleotides, deoxyribonucleotides, and chemically modified nucleotides, for example, 2'-O-methyl, 2'-fluoro, 2'-amino, 2'-O-amino, 2'-C-allyl, 2'-O-allyl, and other 2'-modified or base modified nucleotides. The biodegradable nucleic acid linker molecule can be a dimer, trimer, tetramer or longer nucleic acid molecule, for example, an oligonucleotide of about 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20 nucleotides in length, or can comprise a single nucleotide with a phosphorus based linkage, for example, a phosphoramidate or phosphodiester linkage. The biodegradable nucleic acid linker molecule can also comprise nucleic acid backbone, nucleic acid sugar, or nucleic acid base modifications.

The term "biodegradable" as used herein, refers to degradation in a biological system, for example enzymatic degradation or chemical degradation.

The term "biologically active molecule" as used herein, refers to compounds or molecules that are capable of eliciting or modifying a biological response in a system. Non-limiting examples of biologically active molecules contemplated by the instant invention include therapeutically active molecules such as antibodies, hormones, antivirals, peptides, proteins, chemotherapeutics, small molecules, vitamins, co-factors, nucleosides, nucleotides, oligonucleotides, enzymatic nucleic acids, antisense nucleic acids, triplex forming oligonucleotides, 2,5-A chimeras, siRNA, dsRNA, allozymes, aptamers, decoys and analogs thereof. Biologically active molecules of the invention also include molecules capable of modulating the pharmacokinetics and/or pharmacodynamics of other biologically active

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molecules, for example, lipids and polymers such as polyamines, polyamides, polyethylene glycol and other polyethers.

The term "phospholipid" as used herein, refers to a hydrophobic molecule comprising at least one phosphorus group. For example, a phospholipid can comprise a phosphorus containing group and saturated or unsaturated alkyl group, optionally substituted with OH, COOH, oxo, amine, or substituted or unsubstituted aryl groups.

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Therapeutic nucleic acid molecules (e.g., enzymatic nucleic acid molecules and antisense nucleic acid molecules) delivered exogenously are optimally stable within cells until translation of the target RNA has been inhibited long enough to reduce the levels of the undesirable protein. This period of time varies between hours to days depending upon the disease state. These nucleic acid molecules should be resistant to nucleases in order to function as effective intracellular therapeutic agents. Improvements in the chemical synthesis of nucleic acid molecules described in the instant invention and in the art have expanded the ability to modify nucleic acid molecules by introducing nucleotide modifications to enhance their nuclease stability as described above.

In another embodiment, nucleic acid catalysts having chemical modifications that maintain or enhance enzymatic activity are provided. Such nucleic acids are also generally more resistant to nucleases than unmodified nucleic acid. Thus, in a cell and/or *in vivo* the activity of the nucleic acid may not be significantly lowered. As exemplified herein such enzymatic nucleic acids are useful in a cell and/or *in vivo* even if activity over all is reduced 10 fold (Burgin *et al.*, 1996, *Biochemistry*, 35, 14090). Such enzymatic nucleic acids herein are said to "maintain" the enzymatic activity of an all RNA ribozyme or all DNA DNAzyme.

In another aspect the nucleic acid molecules comprise a 5' and/or a 3'- cap structure.

By "cap structure" is meant chemical modifications, which have been incorporated at either terminus of the oligonucleotide (see for example Wincott *et al.*, WO 97/26270, incorporated by reference herein). These terminal modifications protect the nucleic acid molecule from exonuclease degradation, and can help in delivery and/or localization within a cell. The cap can be present at the 5'-terminus (5'-cap) or at the 3'-terminus (3'-cap) or can be present on both terminus. In non-limiting examples, the 5'-cap includes inverted abasic residue (moiety), 4',5'-methylene nucleotide; 1-(beta-D-erythrofuranosyl) nucleotide, 4'-thio nucleotide, carbocyclic nucleotide; 1,5-anhydrohexitol nucleotide; L-nucleotides; alphanucleotides; modified base nucleotide; phosphorodithioate linkage; *threo*-pentofuranosyl nucleotide; acyclic 3',4'-seco nucleotide; acyclic 3,4-dihydroxybutyl nucleotide; acyclic 3,5-

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dihydroxypentyl nucleotide, 3'-3'-inverted nucleotide moiety; 3'-3'-inverted abasic moiety; 3'-2'-inverted nucleotide moiety; 3'-2'-inverted abasic moiety; 1,4-butanediol phosphate; 3'-phosphoramidate; hexylphosphate; aminohexyl phosphate; 3'-phosphate; 3'-phosphorothioate; phosphorodithioate; or bridging or non-bridging methylphosphonate moiety (for more details see Wincott *et al.*, International PCT publication No. WO 97/26270, incorporated by reference herein).

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In another embodiment the 3'-cap includes, for example 4',5'-methylene nucleotide; 1-(beta-D-erythrofuranosyl) nucleotide; 4'-thio nucleotide, carbocyclic nucleotide; 5'-amino-alkyl phosphate; 1,3-diamino-2-propyl phosphate, 3-aminopropyl phosphate; 6-aminohexyl phosphate; 1,2-aminododecyl phosphate; hydroxypropyl phosphate; 1,5-anhydrohexitol nucleotide; L-nucleotide; alpha-nucleotide; modified base nucleotide; phosphorodithioate; threo-pentofuranosyl nucleotide; acyclic 3',4'-seco nucleotide; 3,4-dihydroxybutyl nucleotide; 3,5-dihydroxypentyl nucleotide, 5'-5'-inverted nucleotide moiety; 5'-5'-inverted abasic moiety; 5'-phosphoramidate; 5'-phosphorothioate; 1,4-butanediol phosphate; 5'-amino; bridging and/or non-bridging 5'-phosphoramidate, phosphorothioate and/or phosphorodithioate, bridging or non bridging methylphosphonate and 5'-mercapto moieties (for more details see Beaucage and Iyer, 1993, Tetrahedron 49, 1925; incorporated by reference herein).

By the term "non-nucleotide" is meant any group or compound which can be incorporated into a nucleic acid chain in the place of one or more nucleotide units, including either sugar and/or phosphate substitutions, and allows the remaining bases to exhibit their enzymatic activity. The group or compound is abasic in that it does not contain a commonly recognized nucleotide base, such as adenosine, guanine, cytosine, uracil or thymine.

An "alkyl" group refers to a saturated aliphatic hydrocarbon, including straight-chain, branched-chain, and cyclic alkyl groups. Preferably, the alkyl group has 1 to 12 carbons. More preferably it is a lower alkyl of from 1 to 7 carbons, more preferably 1 to 4 carbons. The alkyl group can be substituted or unsubstituted. When substituted the substituted group(s) is preferably, hydroxyl, cyano, alkoxy, =0, =S, NO₂ or N(CH₃)₂, amino, or SH. The term also includes alkenyl groups which are unsaturated hydrocarbon groups containing at least one carbon-carbon double bond, including straight-chain, branched-chain, and cyclic groups. Preferably, the alkenyl group has 1 to 12 carbons. More preferably it is a lower alkenyl of from 1 to 7 carbons, more preferably 1 to 4 carbons. The alkenyl group can be substituted or unsubstituted. When substituted the substituted group(s) is preferably, hydroxyl, cyano, alkoxy, =0, =S, NO₂, halogen, N(CH₃)₂, amino, or SH. The term "alkyl" also includes alkynyl groups which have an unsaturated hydrocarbon group containing at least

one carbon-carbon triple bond, including straight-chain, branched-chain, and cyclic groups. Preferably, the alkynyl group has 1 to 12 carbons. More preferably it is a lower alkynyl of from 1 to 7 carbons, more preferably 1 to 4 carbons. The alkynyl group can be substituted or unsubstituted. When substituted the substituted group(s) is preferably, hydroxyl, cyano, alkoxy, =0, =S, NO₂ or N(CH₃)₂, amino or SH.

Such alkyl groups can also include aryl, alkylaryl, carbocyclic aryl, heterocyclic aryl, amide and ester groups. An "aryl" group refers to an aromatic group which has at least one ring having a conjugated p electron system and includes carbocyclic aryl, heterocyclic aryl and biaryl groups, all of which can be optionally substituted. The preferred substituent(s) of aryl groups are halogen, trihalomethyl, hydroxyl, SH, OH, cyano, alkoxy, alkyl, alkenyl, alkynyl, and amino groups. An "alkylaryl" group refers to an alkyl group (as described above) covalently joined to an aryl group (as described above). Carbocyclic aryl groups are groups wherein the ring atoms on the aromatic ring are all carbon atoms. The carbon atoms are optionally substituted. Heterocyclic aryl groups are groups having from 1 to 3 heteroatoms as ring atoms in the aromatic ring and the remainder of the ring atoms are carbon atoms. Suitable heteroatoms include oxygen, sulfur, and nitrogen, and include furanyl, thienyl, pyrrolyl, N-lower alkyl pyrrolo, pyrimidyl, pyrazinyl, imidazolyl and the like, all optionally substituted. An "amide" refers to an -C(O)-NH-R, where R is either alkyl, aryl, alkylaryl or hydrogen. An "ester" refers to an -C(O)-OR', where R is either alkyl, aryl, alkylaryl or hydrogen.

By "nucleotide" is meant a heterocyclic nitrogenous base in N-glycosidic linkage with a phosphorylated sugar. Nucleotides are recognized in the art to include natural bases (standard), and modified bases well known in the art. Such bases are generally located at the 1' position of a nucleotide sugar moiety. Nucleotides generally comprise a base, sugar and a phosphate group. The nucleotides can be unmodified or modified at the sugar, phosphate and/or base moiety, (also referred to interchangeably as nucleotide analogs, modified nucleotides, non-natural nucleotides, non-standard nucleotides and other; see for example, Usman and McSwiggen, supra; Eckstein *et al.*, International PCT Publication No. WO 92/07065; Usman *et al.*, International PCT Publication No. WO 93/15187; Uhlman & Peyman, supra all are hereby incorporated by reference herein). There are several examples of modified nucleic acid bases known in the art as summarized by Limbach *et al.*, 1994, Nucleic Acids Res. 22, 2183. Some of the non-limiting examples of chemically modified and other natural nucleic acid bases that can be introduced into nucleic acids include, for example, inosine, purine, pyridin-4-one, pyridin-2-one, phenyl, pseudouracil, 2, 4, 6-trimethoxy benzene, 3-methyl uracil, dihydrouridine, naphthyl, aminophenyl, 5-alkylcytidines (e.g.,

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5-methylcytidine), 5-alkyluridines (e.g., ribothymidine), 5-halouridine (e.g., 5-bromouridine) or 6-azapyrimidines or 6-alkylpyrimidines (e.g. 6-methyluridine), propyne, quesosine, 2thiouridine, 4-thiouridine, 5wybutosine, wybutoxosine, 4-acetylcytidine, (carboxyhydroxymethyl)uridine, 5'-carboxymethylaminomethyl-2-thiouridine, 5carboxymethylaminomethyluridine, beta-D-galactosylqueosine, 1-methyladenosine, 1methylinosine, 2,2-dimethylguanosine, 3-methylcytidine, 2-methyladenosine, 2methylguanosine. N6-methyladenosine. 7-methylguanosine, 5-methoxyaminomethyl-2thiouridine, 5-methylaminomethyluridine, 5-methylcarbonylmethyluridine. 5methyloxyuridine, 5-methyl-2-thiouridine, 2-methylthio-N6-isopentenyladenosine, beta-Dmannosylqueosine, uridine-5-oxyacetic acid, 2-thiocytidine, threonine derivatives and others (Burgin et al., 1996, Biochemistry, 35, 14090; Uhlman & Peyman, supra). By "modified bases" in this aspect is meant nucleotide bases other than adenine, guanine, cytosine and uracil at 1' position or their equivalents; such bases can be used at any position, for example, within the catalytic core of an enzymatic nucleic acid molecule and/or in the substrate-binding regions of the nucleic acid molecule.

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By "nucleoside" is meant a heterocyclic nitrogenous base in N-glycosidic linkage with a sugar. Nucleosides are recognized in the art to include natural bases (standard), and modified bases well known in the art. Such bases are generally located at the 1' position of a nucleoside sugar moiety. Nucleosides generally comprise a base and sugar group. The nucleosides can be unmodified or modified at the sugar, and/or base moiety, (also referred to interchangeably as nucleoside analogs, modified nucleosides, non-natural nucleosides, nonstandard nucleosides and other; see for example, Usman and McSwiggen, supra; Eckstein et al., International PCT Publication No. WO 92/07065; Usman et al., International PCT Publication No. WO 93/15187; Uhlman & Peyman, supra all are hereby incorporated by reference herein). There are several examples of modified nucleic acid bases known in the art as summarized by Limbach et al., 1994, Nucleic Acids Res. 22, 2183. Some of the nonlimiting examples of chemically modified and other natural nucleic acid bases that can be introduced into nucleic acids include, inosine, purine, pyridin-4-one, pyridin-2-one, phenyl, pseudouracil, 2, 4, 6-trimethoxy benzene, 3-methyl uracil, dihydrouridine, naphthyl, aminophenyl, 5-alkylcytidines (e.g., 5-methylcytidine), 5-alkyluridines (e.g., ribothymidine), 5-halouridine (e.g., 5-bromouridine) or 6-azapyrimidines or 6-alkylpyrimidines (e.g. 6methyluridine), propyne, quesosine, 2-thiouridine, 4-thiouridine, wybutosine, wybutososine, 4-acetylcytidine, 5-(carboxyhydroxymethyl)uridine, 5'-carboxymethylaminomethyl-2thiouridine, 5-carboxymethylaminomethyluridine, beta-D-galactosylqueosine. 1-2.2-dimethylguanosine, methyladenosine, 1-methylinosine, 3-methylcytidine. 2methyladenosine. 2-methylguanosine, N6-methyladenosine, 7-methylguanosine, 5-

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methoxyaminomethyl-2-thiouridine, 5-methylaminomethyluridine, 5-methylcarbonylmethyluridine, 5-methyloxyuridine, 5-methyl-2-thiouridine, 2-methylthio-N6-isopentenyladenosine, beta-D-mannosylqueosine, uridine-5-oxyacetic acid, 2-thiocytidine, threonine derivatives and others (Burgin *et al.*, 1996, Biochemistry, 35, 14090; Uhlman & Peyman, supra). By "modified bases" in this aspect is meant nucleoside bases other than adenine, guanine, cytosine and uracil at 1' position or their equivalents; such bases can be used at any position, for example, within the catalytic core of an enzymatic nucleic acid molecule and/or in the substrate-binding regions of the nucleic acid molecule.

In one embodiment, the invention features modified enzymatic nucleic acid molecules with phosphate backbone modifications comprising one or more phosphorothioate, phosphorodithioate, methylphosphonate, morpholino, amidate carbamate, carboxymethyl, acetamidate, polyamide, sulfonate, sulfonamide, sulfamate, formacetal, thioformacetal, and/or alkylsilyl, substitutions. For a review of oligonucleotide backbone modifications see Hunziker and Leumann, 1995, *Nucleic Acid Analogues: Synthesis and Properties*, in *Modern Synthetic Methods*, VCH, 331-417, and Mesmaeker *et al.*, 1994, *Novel Backbone Replacements for Oligonucleotides*, in *Carbohydrate Modifications in Antisense Research*, ACS, 24-39. These references are hereby incorporated by reference herein.

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By "abasic" is meant sugar moieties lacking a base or having other chemical groups in place of a base at the 1' position, for example a 3',3'-linked or 5',5'-linked deoxyabasic ribose derivative (for more details see Wincott *et al.*, International PCT publication No. WO 97/26270).

By "unmodified nucleoside" is meant one of the bases adenine, cytosine, guanine, thymine, uracil joined to the 1' carbon of β -D-ribo-furanose.

By "modified nucleoside" is meant any nucleotide base which contains a modification in the chemical structure of an unmodified nucleotide base, sugar and/or phosphate.

In connection with 2'-modified nucleotides as described for the present invention, by "amino" is meant 2'-NH₂ or 2'-O- NH₂, which can be modified or unmodified. Such modified groups are described, for example, in Eckstein *et al.*, U.S. Patent 5,672,695 and Matulic-Adamic *et al.*, WO 98/28317, respectively, which are both incorporated by reference in their entireties.

Various modifications to nucleic acid (e.g., antisense and ribozyme) structure can be made to enhance the utility of these molecules. For example, such modifications can enhance

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shelf-life, half-life *in vitro*, stability, and ease of introduction of such oligonucleotides to the target site, including, *e.g.*, enhancing penetration of cellular membranes and conferring the ability to recognize and bind to targeted cells.

Use of the nucleic acid-based molecules of the invention can lead to better treatment of the disease progression by affording the possibility of combination therapies (e.g., multiple enzymatic nucleic acid molecules targeted to different genes, enzymatic nucleic acid molecules coupled with known small molecule inhibitors, or intermittent treatment with combinations of enzymatic nucleic acid molecules (including different enzymatic nucleic acid molecule motifs) and/or other chemical or biological molecules). The treatment of patients with nucleic acid molecules can also include combinations of different types of nucleic acid molecules. Therapies can be devised which include a mixture of enzymatic nucleic acid molecules (including different enzymatic nucleic acid molecule motifs), allozymes, antisense, dsRNA, aptamers, and/or 2-5A chimera molecules to one or more targets to alleviate symptoms of a disease.

15 Administration of Nucleic Acid Molecules

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Methods for the delivery of nucleic acid molecules are described in Akhtar et al., 1992, Trends Cell Bio., 2, 139; and Delivery Strategies for Antisense Oligonucleotide Therapeutics, ed. Akhtar, 1995 which are both incorporated herein by reference. Sullivan et al., PCT WO 94/02595, further describes the general methods for delivery of enzymatic RNA molecules. These protocols can be utilized for the delivery of virtually any nucleic acid molecule. Nucleic acid molecules can be administered to cells by a variety of methods known to those familiar to the art, including, but not restricted to, encapsulation in liposomes, by iontophoresis, or by incorporation into other vehicles, such as hydrogels, cyclodextrins, biodegradable nanocapsules, and bioadhesive microspheres. Alternatively, the nucleic acid/vehicle combination is locally delivered by direct injection or by use of an infusion pump. Other routes of delivery include, but are not limited to oral (tablet or pill form) and/or intrathecal delivery (Gold, 1997, Neuroscience, 76, 1153-1158). Other approaches include the use of various transport and carrier systems, for example though the use of conjugates and biodegradable polymers. For a comprehensive review on drug delivery strategies including CNS delivery, see Ho et al., 1999, Curr. Opin. Mol. Ther., 1, 336-343 and Jain, Drug Delivery Systems: Technologies and Commercial Opportunities, Decision Resources, 1998 and Groothuis et al., 1997, J. Neuro Virol., 3, 387-400. More detailed descriptions of nucleic acid delivery and administration are provided in Sullivan et al., supra, Draper et al., PCT

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WO93/23569, Beigelman et al., PCT WO99/05094, and Klimuk et al., PCT WO99/04819 all of which have been incorporated by reference herein.

The molecules of the instant invention can be used as pharmaceutical agents. Pharmaceutical agents prevent, inhibit the occurrence, or treat (alleviate a symptom to some extent, preferably all of the symptoms) of a disease state in a patient.

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The polynucleotides of the invention can be administered (e.g., RNA, DNA or protein) and introduced into a patient by any standard means, with or without stabilizers, buffers, and the like, to form a pharmaceutical composition. When it is desired to use a liposome delivery mechanism, standard protocols for formation of liposomes can be followed. The compositions of the present invention can also be formulated and used as tablets, capsules or elixirs for oral administration; suppositories for rectal administration; sterile solutions; suspensions for injectable administration; and the other compositions known in the art.

The present invention also includes pharmaceutically acceptable formulations of the compounds described. These formulations include salts of the above compounds, e.g., acid addition salts, for example, salts of hydrochloric, hydrobromic, acetic acid, and benzene sulfonic acid.

A pharmacological composition or formulation refers to a composition or formulation in a form suitable for administration, e.g., systemic administration, into a cell or patient, preferably a human. Suitable forms, in part, depend upon the use or the route of entry, for example oral, transdermal, or by injection. Such forms should not prevent the composition or formulation from reaching a target cell (i.e., a cell to which the negatively charged polymer is desired to be delivered to). For example, pharmacological compositions injected into the blood stream should be soluble. Other factors are known in the art, and include considerations such as toxicity and forms which prevent the composition or formulation from exerting its effect.

By "systemic administration" is meant in vivo systemic absorption or accumulation of drugs in the blood stream followed by distribution throughout the entire body. Administration routes which lead to systemic absorption include, without limitations: intravenous, subcutaneous, intraperitoneal, inhalation, oral, intrapulmonary and intramuscular. Each of these administration routes expose the desired negatively charged polymers, e.g., nucleic acids, to an accessible diseased tissue. The rate of entry of a drug into the circulation has been shown to be a function of molecular weight or size. The use of a liposome or other drug carrier comprising the compounds of the instant invention can

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potentially localize the drug, for example, in certain tissue types, such as the tissues of the reticular endothelial system (RES). A liposome formulation which can facilitate the association of drug with the surface of cells, such as, lymphocytes and macrophages is also useful. This approach can provide enhanced delivery of the drug to target cells by taking advantage of the specificity of macrophage and lymphocyte immune recognition of abnormal cells, such as cells implicated in endometriosis, birth control, endometrial tumors, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), menopausal dysfunction, and endometrial carcinoma.

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By pharmaceutically acceptable formulation is meant, a composition or formulation that allows for the effective distribution of the nucleic acid molecules of the instant invention in the physical location most suitable for their desired activity. Non-limiting examples of agents suitable for formulation with the nucleic acid molecules of the instant invention include: PEG conjugated nucleic acids, phospholipid conjugated nucleic acids, nucleic acids containing lipophilic moieties, phosphorothioates, P-glycoprotein inhibitors (such as Pluronic P85) which can enhance entry of drugs into various tissues, for example the CNS (Jolliet-Riant and Tillement, 1999, Fundam. Clin. Pharmacol., 13, 16-26); biodegradable polymers, such as poly (DL-lactide-coglycolide) microspheres for sustained release delivery after implantation (Emerich, DF et al, 1999, Cell Transplant, 8, 47-58) Alkermes, Inc. Cambridge, MA; and loaded nanoparticles, such as those made of polybutylcyanoacrylate, which can deliver drugs across the blood brain barrier and can alter neuronal uptake mechanisms (Prog Neuropsychopharmacol Biol Psychiatry, 23, 941-949, 1999). Other non-limiting examples of delivery strategies, including CNS delivery of the nucleic acid molecules of the instant invention include material described in Boado et al., 1998, J. Pharm. Sci., 87, 1308-1315; Tyler et al., 1999, FEBS Lett., 421, 280-284; Pardridge et al., 1995, PNAS USA., 92, 5592-5596; Boado, 1995, Adv. Drug Delivery Rev., 15, 73-107; Aldrian-Herrada et al., 1998, Nucleic Acids Res., 26, 4910-4916; and Tyler et al., 1999, PNAS USA., 96, 7053-7058. All these references are hereby incorporated herein by reference.

The invention also features the use of the composition comprising surface-modified liposomes containing poly (ethylene glycol) lipids (PEG-modified, or long-circulating liposomes or stealth liposomes). Nucleic acid molecules of the invention can also comprise covalently attached PEG molecules of various molecular weights. These formulations offer a method for increasing the accumulation of drugs in target tissues. This class of drug carriers resists opsonization and elimination by the mononuclear phagocytic system (MPS or RES), thereby enabling longer blood circulation times and enhanced tissue exposure for the encapsulated drug (Lasic *et al. Chem. Rev.* 1995, 95, 2601-2627; Ishiwata *et al., Chem.*

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Pharm. Bull. 1995, 43, 1005-1011). Such liposomes have been shown to accumulate selectively in tumors, presumably by extravasation and capture in the neovascularized target tissues (Lasic et al., Science 1995, 267, 1275-1276; Oku et al., 1995, Biochim. Biophys. Acta, 1238, 86-90). The long-circulating liposomes enhance the pharmacokinetics and pharmacodynamics of DNA and RNA, particularly compared to conventional cationic liposomes which are known to accumulate in tissues of the MPS (Liu et al., J. Biol. Chem. 1995, 42, 24864-24870; Choi et al., International PCT Publication No. WO 96/10391; Ansell et al., International PCT Publication No. WO 96/10390; Holland et al., International PCT Publication No. WO 96/10392; all of which are incorporated by reference herein). Long-circulating liposomes are also likely to protect drugs from nuclease degradation to a greater extent compared to cationic liposomes, based on their ability to avoid accumulation in metabolically aggressive MPS tissues such as the liver and spleen. All of these references are incorporated by reference herein.

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The present invention also includes compositions prepared for storage or administration which include a pharmaceutically effective amount of the desired compounds in a pharmaceutically acceptable carrier or diluent. Acceptable carriers or diluents for therapeutic use are well known in the pharmaceutical art, and are described, for example, in *Remington's Pharmaceutical Sciences*, Mack Publishing Co. (A.R. Gennaro edit. 1985) hereby incorporated by reference herein. For example, preservatives, stabilizers, dyes and flavoring agents can be provided. These include sodium benzoate, sorbic acid and esters of phydroxybenzoic acid. In addition, antioxidants and suspending agents can be used.

A pharmaceutically effective dose is that dose required to prevent, inhibit the occurrence, or treat (alleviate a symptom to some extent, preferably all of the symptoms) of a disease state. The pharmaceutically effective dose depends on the type of disease, the composition used, the route of administration, the type of mammal being treated, the physical characteristics of the specific mammal under consideration, concurrent medication, and other factors which those skilled in the medical arts will recognize. Generally, an amount between 0.1 mg/kg and 100 mg/kg body weight/day of active ingredients is administered dependent upon potency of the negatively charged polymer.

The nucleic acid molecules of the invention and formulations thereof can be administered orally, topically, parenterally, by inhalation or spray or rectally in dosage unit formulations containing conventional non-toxic pharmaceutically acceptable carriers, adjuvants and vehicles. The term parenteral as used herein includes percutaneous, subcutaneous, intravascular (e.g., intravenous), intramuscular, or intrathecal injection or

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infusion techniques and the like. In addition, there is provided a pharmaceutical formulation comprising a nucleic acid molecule of the invention and a pharmaceutically acceptable carrier. One or more nucleic acid molecules of the invention can be present in association with one or more non-toxic pharmaceutically acceptable carriers and/or diluents and/or adjuvants, and if desired other active ingredients. The pharmaceutical compositions containing nucleic acid molecules of the invention can be in a form suitable for oral use, for example, as tablets, troches, lozenges, aqueous or oily suspensions, dispersible powders or granules, emulsion, hard or soft capsules, or syrups or elixirs.

Compositions intended for oral use can be prepared according to any method known to the art for the manufacture of pharmaceutical compositions and such compositions can contain one or more such sweetening agents, flavoring agents, coloring agents or preservative agents in order to provide pharmaceutically elegant and palatable preparations. Tablets contain the active ingredient in admixture with non-toxic pharmaceutically acceptable excipients that are suitable for the manufacture of tablets. These excipients can be for example, inert diluents, such as calcium carbonate, sodium carbonate, lactose, calcium phosphate or sodium phosphate; granulating and disintegrating agents, for example, corn starch, or alginic acid; binding agents, for example starch, gelatin or acacia, and lubricating agents, for example magnesium stearate, stearic acid or talc. The tablets can be uncoated or they can be coated by known techniques. In some cases such coatings can be prepared by known techniques to delay disintegration and absorption in the gastrointestinal tract and thereby provide a sustained action over a longer period. For example, a time delay material such as glyceryl monosterate or glyceryl distearate can be employed.

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Formulations for oral use can also be presented as hard gelatin capsules wherein the active ingredient is mixed with an inert solid diluent, for example, calcium carbonate, calcium phosphate or kaolin, or as soft gelatin capsules wherein the active ingredient is mixed with water or an oil medium, for example peanut oil, liquid paraffin or olive oil.

Aqueous suspensions contain the active materials in admixture with excipients suitable for the manufacture of aqueous suspensions. Such excipients are suspending agents, for example sodium carboxymethylcellulose, methylcellulose, hydropropyl-methylcellulose, sodium alginate, polyvinylpyrrolidone, gum tragacanth and gum acacia; dispersing or wetting agents can be a naturally-occurring phosphatide, for example, lecithin, or condensation products of an alkylene oxide with fatty acids, for example polyoxyethylene stearate, or condensation products of ethylene oxide with long chain aliphatic alcohols, for example heptadecaethyleneoxycetanol, or condensation products of ethylene oxide with partial esters

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derived from fatty acids and a hexitol such as polyoxyethylene sorbitol monooleate, or condensation products of ethylene oxide with partial esters derived from fatty acids and hexitol anhydrides, for example polyethylene sorbitan monooleate. The aqueous suspensions can also contain one or more preservatives, for example ethyl, or n-propyl p-hydroxybenzoate, one or more coloring agents, one or more flavoring agents, and one or more sweetening agents, such as sucrose or saccharin.

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Oily suspensions can be formulated by suspending the active ingredients in a vegetable oil, for example arachis oil, olive oil, sesame oil or coconut oil, or in a mineral oil such as liquid paraffin. The oily suspensions can contain a thickening agent, for example beeswax, hard paraffin or cetyl alcohol. Sweetening agents and flavoring agents can be added to provide palatable oral preparations. These compositions can be preserved by the addition of an anti-oxidant such as ascorbic acid.

Dispersible powders and granules suitable for preparation of an aqueous suspension by the addition of water provide the active ingredient in admixture with a dispersing or wetting agent, suspending agent and one or more preservatives. Suitable dispersing or wetting agents or suspending agents are exemplified by those already mentioned above. Additional excipients, for example sweetening, flavoring and coloring agents, can also be present.

Pharmaceutical compositions of the invention can also be in the form of oil-in-water emulsions. The oily phase can be a vegetable oil or a mineral oil or mixtures of these. Suitable emulsifying agents can be naturally-occurring gums, for example gum acacia or gum tragacanth, naturally-occurring phosphatides, for example soy bean, lecithin, and esters or partial esters derived from fatty acids and hexitol, anhydrides, for example sorbitan monooleate, and condensation products of the said partial esters with ethylene oxide, for example polyoxyethylene sorbitan monooleate. The emulsions can also contain sweetening and flavoring agents.

Syrups and elixirs can be formulated with sweetening agents, for example glycerol, propylene glycol, sorbitol, glucose or sucrose. Such formulations can also contain a demulcent, a preservative and flavoring and coloring agents. The pharmaceutical compositions can be in the form of a sterile injectable aqueous or oleaginous suspension. This suspension can be formulated according to the known art using those suitable dispersing or wetting agents and suspending agents that have been mentioned above. The sterile injectable preparation can also be a sterile injectable solution or suspension in a non-toxic parentally acceptable diluent or solvent, for example as a solution in 1,3-butanediol. Among the acceptable vehicles and solvents that can be employed are water, Ringer's solution and

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isotonic sodium chloride solution. In addition, sterile, fixed oils are conventionally employed as a solvent or suspending medium. For this purpose any bland fixed oil can be employed including synthetic mono-or diglycerides. In addition, fatty acids such as oleic acid find use in the preparation of injectables.

The nucleic acid molecules of the invention can also be administered in the form of suppositories, e.g., for rectal administration of the drug. These compositions can be prepared by mixing the drug with a suitable non-irritating excipient that is solid at ordinary temperatures but liquid at the rectal temperature and will therefore melt in the rectum to release the drug. Such materials include cocoa butter and polyethylene glycols.

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Nucleic acid molecules of the invention can be administered parenterally in a sterile medium. The drug, depending on the vehicle and concentration used, can either be suspended or dissolved in the vehicle. Advantageously, adjuvants such as local anesthetics, preservatives and buffering agents can be dissolved in the vehicle.

Dosage levels of the order of from about 0.1 mg to about 140 mg per kilogram of body weight per day are useful in the treatment of the above-indicated conditions (about 0.5 mg to about 7 g per patient per day). The amount of active ingredient that can be combined with the carrier materials to produce a single dosage form varies depending upon the host treated and the particular mode of administration. Dosage unit forms generally contain between from about 1 mg to about 500 mg of an active ingredient.

It is understood that the specific dose level for any particular patient depends upon a variety of factors including the activity of the specific compound employed, the age, body weight, general health, sex, diet, time of administration, route of administration, and rate of excretion, drug combination and the severity of the particular disease undergoing therapy.

For administration to non-human animals, the composition can also be added to the animal feed or drinking water. It can be convenient to formulate the animal feed and drinking water compositions so that the animal takes in a therapeutically appropriate quantity of the composition along with its diet. It can also be convenient to present the composition as a premix for addition to the feed or drinking water.

The nucleic acid molecules of the present invention can also be administered to a patient in combination with other therapeutic compounds to increase the overall therapeutic effect. The use of multiple compounds to treat an indication can increase the beneficial effects while reducing the presence of side effects.

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Alternatively, certain of the nucleic acid molecules of the instant invention can be expressed within cells from eukaryotic promoters (e.g., Izant and Weintraub, 1985, Science, 229, 345; McGarry and Lindquist, 1986, Proc. Natl. Acad. Sci., USA 83, 399; Scanlon et al., 1991, Proc. Natl. Acad. Sci. USA, 88, 10591-5; Kashani-Sabet et al., 1992, Antisense Res. Dev., 2, 3-15; Dropulic et al., 1992, J. Virol., 66, 1432-41; Weerasinghe et al., 1991, J. Virol., 65, 5531-4; Ojwang et al., 1992, Proc. Natl. Acad. Sci. USA, 89, 10802-6; Chen et al., 1992, Nucleic Acids Res., 20, 4581-9; Sarver et al., 1990 Science, 247, 1222-1225; Thompson et al., 1995, Nucleic Acids Res., 23, 2259; Good et al., 1997, Gene Therapy, 4, 45; all of these references are hereby incorporated in their totalities by reference herein). Those skilled in the art realize that any nucleic acid can be expressed in eukaryotic cells from the appropriate DNA/RNA vector. The activity of such nucleic acids can be augmented by their release from the primary transcript by a enzymatic nucleic acid (Draper et al., PCT WO 93/23569, and Sullivan et al., PCT WO 94/02595; Ohkawa et al., 1992, Nucleic Acids Symp. Ser., 27, 15-6; Taira et al., 1991, Nucleic Acids Res., 19, 5125-30; Ventura et al., 1993, Nucleic Acids Res., 21, 3249-55; Chowrira et al., 1994, J. Biol. Chem., 269, 25856; all of these references are hereby incorporated in their totalities by reference herein). Gene therapy approaches specific to the CNS are described by Blesch et al., 2000, Drug News Perspect., 13, 269-280; Peterson et al., 2000, Cent. Nerv. Syst. Dis., 485-508; Peel and Klein, 2000, J. Neurosci. Methods, 98, 95-104; Hagihara et al., 2000, Gene Ther., 7, 759-763; and Herrlinger et al., 2000, Methods Mol. Med., 35, 287-312. AAV-mediated delivery of nucleic acid to cells of the nervous system is further described by Kaplitt et al., US 6,180,613.

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In another aspect of the invention, RNA molecules of the present invention are preferably expressed from transcription units (see for example Couture *et al.*, 1996, *TIG.*, 12, 510) inserted into DNA or RNA vectors. The recombinant vectors are preferably DNA plasmids or viral vectors. Ribozyme expressing viral vectors can be constructed based on, but not limited to, adeno-associated virus, retrovirus, adenovirus, or alphavirus. Preferably, the recombinant vectors capable of expressing the nucleic acid molecules are delivered as described above, and persist in target cells. Alternatively, viral vectors can be used that provide for transient expression of nucleic acid molecules. Such vectors can be repeatedly administered as necessary. Once expressed, the nucleic acid molecule binds to the target mRNA. Delivery of nucleic acid molecule expressing vectors can be systemic, such as by intravenous or intra-muscular administration, by administration to target cells ex-planted from the patient followed by reintroduction into the patient, or by any other means that would allow for introduction into the desired target cell (for a review see Couture *et al.*, 1996, *TIG.*, 12, 510).

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In one aspect the invention features an expression vector comprising a nucleic acid sequence encoding at least one of the nucleic acid molecules of the instant invention. The nucleic acid sequence encoding the nucleic acid molecule of the instant invention is operably linked in a manner which allows expression of that nucleic acid molecule.

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In another aspect the invention features an expression vector comprising: a) a transcription initiation region (e.g., eukaryotic pol I, II or III initiation region); b) a transcription termination region (e.g., eukaryotic pol I, II or III termination region); c) a nucleic acid sequence encoding at least one of the nucleic acid catalyst of the instant invention; and wherein said sequence is operably linked to said initiation region and said termination region, in a manner which allows expression and/or delivery of said nucleic acid molecule. The vector can optionally include an open reading frame (ORF) for a protein operably linked on the 5' side or the 3'-side of the sequence encoding the nucleic acid catalyst of the invention; and/or an intron (intervening sequences).

Transcription of the nucleic acid molecule sequences are driven from a promoter for eukaryotic RNA polymerase I (pol I), RNA polymerase II (pol II), or RNA polymerase III 15 (pol III). Transcripts from pol II or pol III promoters are expressed at high levels in all cells; the levels of a given pol II promoter in a given cell type depends on the nature of the gene regulatory sequences (enhancers, silencers, etc.) present nearby. Prokaryotic RNA polymerase promoters are also used, providing that the prokaryotic RNA polymerase enzyme 20 is expressed in the appropriate cells (Elroy-Stein and Moss, 1990, Proc. Natl. Acad. Sci. US A, 87, 6743-7; Gao and Huang 1993, Nucleic Acids Res., 21, 2867-72; Lieber et al., 1993, Methods Enzymol., 217, 47-66; Zhou et al., 1990, Mol. Cell. Biol., 10, 4529-37). All of these references are incorporated by reference herein. Several investigators have demonstrated that nucleic acid molecules, such as ribozymes expressed from such promoters 25 can function in mammalian cells (e.g. Kashani-Sabet et al., 1992, Antisense Res. Dev., 2, 3-15; Ojwang et al., 1992, Proc. Natl. Acad. Sci. U S A, 89, 10802-6; Chen et al., 1992, Nucleic Acids Res., 20, 4581-9; Yu et al., 1993, Proc. Natl. Acad. Sci. U S A, 90, 6340-4; L'Huillier et al., 1992, EMBO J., 11, 4411-8; Lisziewicz et al., 1993, Proc. Natl. Acad. Sci. U. S. A, 90, 8000-4; Thompson et al., 1995, Nucleic Acids Res., 23, 2259; Sullenger & Cech, 30 1993, Science, 262, 1566). More specifically, transcription units such as the ones derived from genes encoding U6 small nuclear (snRNA), transfer RNA (tRNA) and adenovirus VA RNA are useful in generating high concentrations of desired RNA molecules such as ribozymes in cells (Thompson et al., supra; Couture and Stinchcomb, 1996, supra; Noonberg et al., 1994, Nucleic Acid Res., 22, 2830; Noonberg et al., US Patent No. 5,624,803; Good et 35 al., 1997, Gene Ther., 4, 45; Beigelman et al., International PCT Publication No. WO

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96/18736; all of these publications are incorporated by reference herein. The above ribozyme transcription units can be incorporated into a variety of vectors for introduction into mammalian cells, including but not restricted to, plasmid DNA vectors, viral DNA vectors (such as adenovirus or adeno-associated virus vectors), or viral RNA vectors (such as retroviral or alphavirus vectors) (for a review see Couture and Stinchcomb, 1996, supra).

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In another aspect the invention features an expression vector comprising nucleic acid sequence encoding at least one of the nucleic acid molecules of the invention, in a manner which allows expression of that nucleic acid molecule. The expression vector comprises in one embodiment; a) a transcription initiation region; b) a transcription termination region; c) a nucleic acid sequence encoding at least one said nucleic acid molecule; and wherein said sequence is operably linked to said initiation region and said termination region, in a manner which allows expression and/or delivery of said nucleic acid molecule.

In another embodiment the expression vector comprises: a) a transcription initiation region; b) a transcription termination region; c) an open reading frame; d) a nucleic acid sequence encoding at least one said nucleic acid molecule, wherein said sequence is operably linked to the 3'-end of said open reading frame; and wherein said sequence is operably linked to said initiation region, said open reading frame and said termination region, in a manner which allows expression and/or delivery of said nucleic acid molecule. In yet another embodiment the expression vector comprises: a) a transcription initiation region; b) a transcription termination region; c) an intron; d) a nucleic acid sequence encoding at least one said nucleic acid molecule; and wherein said sequence is operably linked to said initiation region, said intron and said termination region, in a manner which allows expression and/or delivery of said nucleic acid molecule.

In another embodiment, the expression vector comprises: a) a transcription initiation region; b) a transcription termination region; c) an intron; d) an open reading frame; e) a nucleic acid sequence encoding at least one said nucleic acid molecule, wherein said sequence is operably linked to the 3'-end of said open reading frame; and wherein said sequence is operably linked to said initiation region, said intron, said open reading frame and said termination region, in a manner which allows expression and/or delivery of said nucleic acid molecule.

Flt-1 (VEGFR1), KDR (VEGFR2) and/or flk-1 are attractive nucleic acid-based therapeutic targets by several criteria. The interaction between VEGF and VEGF-R is well-established. Efficacy can be tested in well-defined and predictive animal models. Finally, the disease conditions are serious and current therapies are inadequate. Whereas protein-based

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therapies are designed to affect VEGF activity, nucleic acid-based therapy based on the molecules and methods described herein provides a direct and elegant approach to directly modulate flt-1, KDR and/or flk-1 expression.

Because VEGFR1 and VEGFR2 mRNAs are highly homologous in certain regions, some nucleic acid target sites are also homologous. In this case, a single nucleic acid molecule of the invention can target both VEGFR1 and VEGFR2 mRNAs. At partially homologous sites, a single nucleic acid molecule can sometimes be designed to accommodate a site on both mRNAs by including G/U base pairing. For example, if there is a G present in a enzymatic nucleic acid target site in VEGFR1 mRNA at the same position there is an A in the VEGFR2 enzymatic nucleic acid target site, the enzymatic nucleic acid can be synthesized with a U at the complementary position and it will bind both to sites. The advantage of one enzymatic nucleic acid that targets both VEGFR1 and VEGFR2 mRNAs is clear, especially in cases where both VEGF receptors may contribute to the progression of angiogenesis in the disease state.

15 <u>Examples</u>

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The following are non-limiting examples showing the selection, isolation, synthesis and activity of exemplary nucleic acids of the instant invention.

The following examples demonstrate the selection and design of antisense, aptamer, dsRNA, allozyme, hammerhead, DNAzyme, NCH, Amberzyme, Zinzyme, or G-Cleaver ribozyme molecules and binding/cleavage sites within VEGF, VEGFR1 and/or VEGFR2 RNA.

Example 1: Enzymatic nucleic acid-mediated inhibition of angiogenesis in vivo

The study described below was performed to assess the anti-angiogenic activity of hammerhead ribozymes targeted against flt-1 4229 site (SED ID NO: 5977) in the rat cornea model of VEGF induced angiogenesis (see above). These ribozymes have either active or inactive catalytic core and either bind and cleave or just bind to VEGF-R mRNA of the flt-1 subtype. The active ribozymes, that are able to bind and cleave the target RNA, have been shown to inhibit (125I-labeled) VEGF binding in cultured endothelial cells and produce a dose-dependent decrease in VEGF induced endothelial cell proliferation in these cells. The catalytically inactive forms of these ribozymes, which can only bind to the RNA but cannot catalyze RNA cleavage, failed to inhibit VEGF binding and failed to decrease VEGF induced endothelial cell proliferation. The ribozymes and VEGF were co-delivered using the filter

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disk method: Nitrocellulose filter disks (Millipore®) of 0.057 diameter were immersed in appropriate solutions and were surgically implanted in rat cornea as described by Pandey *et al.*, *supra*. This delivery method has been shown to deliver rhodamine-labeled free ribozyme to scleral cells and, in all likelihood cells of the pericorneal vascular plexus. Since the active ribozymes show cell culture efficacy and can be delivered to the target site using the disk method, it is essential that these ribozymes be assessed for *in vivo* anti-angiogenic activity.

The stimulus for angiogenesis in this study was the treatment of the filter disk with 30 µM VEGF which is implanted within the comea's stroma. This dose yields reproducible neovascularization stemming from the pericorneal vascular plexus growing toward the disk in a dose-response study 5 days following implant. Filter disks treated only with the vehicle for VEGF show no angiogenic response. The ribozymes were co-adminstered with VEGF on a disk in two different ribozyme concentrations. One concern with the simultaneous administration is that the ribozymes will not be able to inhibit angiogenesis since VEGF receptors can be stimulated. However, we have observed that in low VEGF doses, the neovascular response reverts to normal suggesting that the VEGF stimulus is essential for maintaining the angiogenic response. Blocking the production of VEGF receptors using simultaneous administration of anti-VEGF-R mRNA ribozymes could attenuate the normal neovascularization induced by the filter disk treated with VEGF.

Materials and Methods:

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20 1. Stock hammerhead ribozyme solutions:

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a. flt-1 4229 (786 µM)- Active
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b. flt-1 4229 (736 μM)—Inactive

2. Experimental solutions/groups:

Group 1 Solution 1 Control VEGF solution: 30 μM in 82mM Tris base

25 Group 2 Solution 2 flt-1 4229 (1 μg/μL) in 30 μM VEGF/82 mM Tris base

Group 3 Solution 3 flt-1 4229 (10 $\mu g/\mu L$) in 30 μM VEGF/82 mM Tris base

Group 4 Solution 4 No VEGF, flt-1 4229 (10 µg/µL) in 82 mM Tris base

Group 5 Solution 5 No VEGF, No ribozyme in 82 mM Tris base

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10 eyes per group, 5 animals (Since they have similar molecular weights, the molar concentrations should be essentially similar).

Each solution (VEGF and RIBOZYMES) were prepared as a 2X solution for 1:1 mixing for final concentrations above, with the exception of solution 1 in which VEGF was 2X and diluted with ribozyme diluent (sterile water).

3. <u>VEGF Solutions</u>

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The 2X VEGF solution (60 μ M) was prepared from a stock of 0.82 μ g/ μ L in 50 mM Tris base. 200 μ L of VEGF stock was concentrated by speed vac to a final volume of 60.8 μ L, for a final concentration of 2.7 μ g/ μ L or 60 μ M. Six 10 μ L aliquots was prepared for daily mixing. 2X solutions for VEGF and Ribozyme was stored at 4°C until the day of the surgery. Solutions were mixed for each day of surgery. Original 2X solutions was prepared on the day before the first day of the surgery.

4. Surgical Solutions:

Anesthesia:

stock ketamine hydrochloride 100 mg/mL

stock xylazine hydrochloride 20 mg/mL

stock acepromazine 10 mg/mL

<u>Final anesthesia solution</u>: 50 mg/mL ketamine, 10 mg/mL xylazine, and 0.5 mg/mL acepromazine

20 5% povidone iodine for opthalmic surgical wash

2% lidocaine (sterile) for opthalmic administration (2 drops per eye)

sterile 0.9% NaCl for opthalmic irrigation

5. <u>Surgical Methods:</u>

Standard surgical procedure as described in Pandey et al., supra. Filter disks were incubated in 1 µL of each solution for approximately 30 minutes prior to implantation.

6. Experimental Protocol:

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The animal cornea were treated with the treatment groups as described above. Animals were allowed to recover for 5 days after treatment with daily observation (scoring 0 - 3). On the fifth day animals were euthanized and digital images of each eye was obtained for quantitation using Image Pro Plus. Quantitated neovascular surface area were analyzed by ANOVA followed by two post-hoc tests including Dunnets and Tukey-Kramer tests for significance at the 95% confidence level. Dunnets provide information on the significance between the differences within the means of treatments vs. controls while Tukey-Kramer provide information on the significance of differences within the means of each group.

The flt-1 4229 (SEQ ID NO: 5977) active hammerhead ribozyme at both concentrations was effective at inhibiting angiogenesis while the inactive ribozyme did not show any significant reduction in angiogenesis. A statistically signifiant reduction in neovascular surface area was observed only with active ribozymes. This result clearly shows that the ribozymes are capable of significantly inhibiting angiogenesis *in vivo*. Specifically, given ribozyme mechanism of action, the observed inhibition is by the binding and cleavage of target RNA by ribozymes.

Example 2: Bioactivity of anti-angiogenesis ribozymes targeting flt-1 and kdr RNA

MATERIALS AND METHODS

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Ribozymes: Hammerhead ribozymes and controls designed to have attenuated activity (attenuated controls) were synthesized and purified as previously described above. The attenuated ribozyme controls maintain the binding arm sequence of the parent ribozyme and thus are still capable of binding to the mRNA target. However, they have two nucleotide changes in the core sequence that substantially reduce their ability to carry out the cleavage reaction. Ribozymes were designed to target Flt-1 or KDR mRNA sites conserved in human, mouse, and rat. In general, ribozymes with binding arms of seven nucleotides were designed and tested. If, however, only six nucleotides surrounding the cleavage site were conserved in all three species, six nucleotide binding arms were used. Data are presented herein for 2'-NH₂ uridine modified ribozymes in cell proliferation studies and for 2'-C-allyl uridine modified ribozymes in RNAse protection, in vitro cleavage and corneal studies.

In vitro ribozyme cleavage assays: In vitro RNA cleavage rates on a 15 nucleotide synthetic RNA substrate were measured as previously described above.

Cell culture: Human dermal microvascular endothelial cells (HMVEC-d, Clonetics Corp.) were maintained at 37°C in flasks or plates coated with 1.5% porcine skin gelatin (300

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bloom, Sigma) in Growth medium (Clonetics Corp.) supplemented with 10-20% fetal bovine serum (FBS, Hyclone). Cells were grown to confluency and used up to the seventh passage. Stimulation medium consisted of 50% Sigma 99 media and 50% RPMI 1640 with L-glutamine and additional supplementation with 10 µg/mL Insulin-Transferrin-Selenium (Gibco BRL) and 10% FBS. Cell growth was stimulated by incubation in Stimulation medium supplemented with 20 ng/mL of either VEGF₁₆₅ or bFGF. VEGF₁₆₅ (165 amino acids) was selected for cell culture and animal studies because it is the predominant form of the four native forms of VEGF generated by alternative mRNA splicing. Cell culture assays were carried out in triplicate.

Ribozyme and ribozyme/LIPOFECTAMINE™ formulations:

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Cell culture: Ribozymes or attenuated controls (50-200 nM) were formulated for cell culture studies and used immediately. Formulations were carried out with LIPOFECTAMINETM (Gibco BRL) at a 3:1 lipid to phosphate charge ratio in serum-free medium (OPTI-MEMTM, Gibco BRL) by mixing for 20 minutes at room temperature. For example, a 3:1 lipid to phosphate charge ratio was established by complexing 200 nM ribozyme with 10.8 μg/μL LIPOFECTAMINETM (13.5 μM DOSPA).

In vivo: For corneal studies, lyophilized ribozyme or attenuated controls were resuspended in sterile water at a final stock concentration of 170 μ g/ μ L (highest dose). Lower doses (1.7-50 μ g/ μ L) were prepared by serial dilution in sterile water.

Proliferation assay: HMVEC-d were seeded (5 x 10³ cells/well) in 48-well plates (Costar) and incubated 24-30 hours in Growth medium at 37°C. After removal of the Growth medium, cells were treated with 50-200 nM LIPOFECTAMINETM complexes of ribozyme or attenuated controls for 2 hours in OPTI-MEMTM. The ribozyme/control-containing medium was removed and the cells were washed extensively in 1X PBS. The medium was then replaced with Stimulation medium or Stimulation medium supplemented with 20 ng/mL VEGF₁₆₅ or bFGF. After 48 hours, the cell number was determined using a CoulterTM cell counter. Data are presented as cell number per well following 48 hours of VEGF stimulation.

RNAse protection assay: HMVEC-d were seeded (2 x 10⁵ cells/well) in 6-well plates (Costar) and allowed to grow 32-36 hours in Growth medium at 37°C. Cells were treated with LIPOFECTAMINETM complexes containing 200 nM ribozyme or attenuated control for 2 h as described under "Proliferation Assay" and then incubated in Growth medium containing 20 ng/mL VEGF₁₆₅ for 24 hours. Cells were harvested and an RNAse protection assay was carried out using the Ambion Direct Protect kit and protocol with the exception that 50 mM

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EDTA was added to the lysis buffer to eliminate the possibility of ribozyme cleavage during sample preparation. Antisense RNA probes targeting portions of Flt-1 and KDR were prepared by transcription in the presence of [32 P]-UTP. Samples were analyzed on polyacrylamide gels and the level of protected RNA fragments was quantified using a Molecular Dynamics PhosphorImager. The levels of Flt-1 and KDR were normalized to the level of cyclophilin (human cyclophilin probe template, Ambion) in each sample. The coefficient of variation for cyclophilin levels was 11% [265940 cpm \pm 29386 (SD)] for all conditions tested here (*i.e.* in the presence of either active ribozymes or attenuated controls). Thus, cyclophilin is useful as an internal standard in these studies.

10 Rat corneal pocket assay of VEGF-induced angiogenesis:

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Animal guidelines and anesthesia. Animal housing and experimentation adhered to standards outlined in the 1996 Guide for the Care and Use of Laboratory Animals (National Research Council). Male Sprague Dawley rats (250-300 g) were anesthetized with ketamine (50 mg/kg), xylazine (10 mg/kg), and acepromazine (0.5 mg/kg) administered intramuscularly (im). The level of anesthesia was monitored every 2-3 min by applying hind limb paw pressure and examining for limb withdrawal. Atropine (0.4 mg/kg, im) was also administered to prevent potential corneal reflex-induced bradycardia.

Preparation of VEGF soaked disk. For corneal implantation, 0.57 mm diameter nitrocellulose disks, prepared from 0.45 μ m pore diameter nitrocellulose filter membranes (Millipore Corporation), were soaked for 30 min in 1 μ L of 30 μ M VEGF₁₆₅ in 82 mM Tris HCl (pH 6.9) in covered petri dishes on ice.

Corneal surgery. The rat corneal model used in this study was a modified from Koch et al. Supra and Pandey et al., supra. Briefly, corneas were irrigated with 0.5% povidone iodine solution followed by normal saline and two drops of 2% lidocaine. Under a dissecting microscope (Leica MZ-6), a stromal pocket was created and a presoaked filter disk (see above) was inserted into the pocket such that its edge was 1 mm from the corneal limbus.

Intraconjunctival injection of test solutions. Immediately after disk insertion, the tip of a 40-50 µm OD injector (constructed in our laboratory) was inserted within the conjunctival tissue 1 mm away from the edge of the corneal limbus that was directly adjacent to the VEGF-soaked filter disk. Six hundred nanoliters of test solution (ribozyme, attenuated control or sterile water vehicle) were dispensed at a rate of 1.2 µL/min using a syringe pump (Kd Scientific). The injector was then removed, serially rinsed in 70% ethanol and sterile water and immersed in sterile water between each injection. Once the test solution was injected.

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closure of the eyelid was maintained using microaneurism clips until the animal began to recover gross motor activity. Following treatment, animals were warmed on a heating pad at 37°C.

Animal treatment groups/experimental protocol. Ribozymes targeting Flt-1 site 4229 (SEQ ID NO: 5977) and KDR mRNA site 726 (SEQ ID NO: 5978) were tested in the corneal model along with their attenuated controls. Five treatment groups were assigned to examine the effects of five doses of each test substance over a dose range of 1-100 µg on VEGF-stimulated angiogenesis. Negative (30 µM VEGF soaked filter disk and intraconjunctival injection of 600 nL sterile water) and no stimulus (Tris-soaked filter disk and intraconjunctival injection of sterile water) control groups were also included. Each group consisted of five animals (10 eyes) receiving the same treatment.

Quantitation of angiogenic response. Five days after disk implantation, animals were euthanized following im administration of 0.4 mg/kg atropine and corneas were digitally imaged. The neovascular surface area (NSA, expressed in pixels) was measured postmortem from blood-filled corneal vessels using computerized morphometry (Image Pro Plus, Media Cybernetics, v2.0). The individual mean NSA was determined in triplicate from three regions of identical size in the area of maximal neovascularization between the filter disk and the limbus. The number of pixels corresponding to the blood-filled corneal vessels in these regions was summated to produce an index of NSA. A group mean NSA was then calculated. Data from each treatment group were normalized to VEGF/ribozyme vehicle-treated control NSA and finally expressed as percent inhibition of VEGF-induced angiogenesis.

Statistics. After determining the normality of treatment group means, group mean percent inhibition of VEGF-induced angiogenesis was subjected to a one-way analysis of variance. This was followed by two post-hoc tests for significance including Dunnett's (comparison to VEGF control) and Tukey-Kramer (all other group mean comparisons) at alpha = 0.05. Statistical analyses were performed using JMP v.3.1.6 (SAS Institute).

RESULTS

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Ribozyme-mediated reduction of VEGF-induced cell proliferation: Ribozyme cleavage of Flt-1 or KDR mRNA should result in a decrease in the density of cell surface VEGF receptors. This decrease should limit VEGF binding and consequently interfere with the mitogenic signaling induced by VEGF. To determine if cell proliferation was impacted by anti-Flt-1 and/or anti-KDR ribozyme treatment, proliferation assays using cultured human microvascular cells were carried out. Ribozymes included in the proliferation assays were

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initially chosen by their ability to decrease the level of VEGF binding to treated cells. In these initial studies, ribozymes targeting 20 sites in the coding region of each mRNA were screened. The most effective ribozymes against two sites in each target, *Flt-1* sites 1358 and 4229 and *KDR* sites 726 and 3950, were included in the proliferation assays reported here. In addition, attenuated analogs of each ribozyme were used as controls. These attenuated controls are still capable of binding to the mRNA target since the binding arm sequence is maintained. However, these controls have two nucleotide changes in the core sequence that substantially reduce their ability to carry out the cleavage reaction.

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The active ribozymes tested decreased the relative proliferation of HMVEC-d after VEGF stimulation, an effect that increased with ribozyme concentration. This concentration dependency was not observed following treatment with the attenuated controls designed for these sites. In fact, little or no change in cell growth was noted following treatment with the attenuated controls, even though these controls can still bind to the specific target sequences. At 200 nM, there was a distinct "window" between the anti-proliferative effects of each ribozyme and its attenuated control; a trend also observed at lower doses. This window of inhibition of proliferation (56-77% based on total cells/well) reflects the contribution of ribozyme-mediated activity. In comparison, no effect of anti-Flt-1 or anti-KDR ribozymes was noted on bFGF-stimulated cell proliferation. Moreover, an irrelevant, but active, ribozyme whose binding sequence is not found in either Flt-1 or KDR mRNA had no effect in this assay. These data are consistent with the basic ribozyme mechanism in which binding and cleavage are necessary components. Although the relative surface distribution of Flt-1 and KDR receptors in this cell type is not known, the antiproliferative effects of these ribozymes indicate that, at least in cell culture, both receptors are functionally coupled to proliferation.

Specific reduction of *Flt-1* or *KDR* mRNA by ribozyme treatment: To confirm that anti-*Flt-1* and anti-*KDR* ribozymes reduce their respective mRNA targets, cellular levels of *Flt-1* or *KDR* were quantified using an RNAse protection assay with specific *Flt-1* or *KDR* probes. For each target, one ribozyme/attenuated control pair was chosen for continued study. Exposure of HMVEC-d to active ribozyme targeting *Flt-1* site 4229 decreased *Flt-1* mRNA, but not *KDR* mRNA. Likewise, treatment with the active ribozyme targeting *KDR* site 726 decreased *KDR*, but not *Flt-1* mRNA. Both ribozymes decreased the level of their respective target RNA by greater than 50%. The degree of reduction associated with the corresponding attenuated controls was not greater than 13%.

In vitro activity of anti-Flt and anti-KDR ribozymes.

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To confirm further the necessity of an active ribozyme core, *in vitro* cleavage activities were determined for the Flt-1 site 4229 ribozyme and the KDR site 726 ribozyme as well as their paired attenuated controls. The first order rate constants calculated from the time-course of short substrate cleavage for the anti-Flt-1 ribozyme and its attenuated control were $0.081 \pm 0.0007 \text{ min}^{-1}$ and $0.001 \pm 6 \times 10^{-5} \text{ min}^{-1}$, respectively. For the anti-KDR ribozyme and its paired control, the first order rate constants were $0.434 \pm 0.024 \text{ min}^{-1}$ and $0.002 \pm 1 \times 10^{-4} \text{ min}^{-1}$, respectively. Although the attenuated controls retain a very slight level of cleavage activity under these optimized conditions, the decrease in *in vitro* cleavage activity between each active ribozyme and its paired attenuated control is about two orders of magnitude. Thus, an active core is essential for cleavage activity *in vitro* and is also necessary for ribozyme activity in cell culture.

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Ribozyme-mediated reduction of VEGF-induced angiogenesis in vivo. To assess whether ribozymes targeting VEGF receptor mRNA could impact the complex process of angiogenesis, prototypic anti-Flt-1 and KDR ribozymes that were identified in cell culture studies were screened in a rat corneal pocket assay of VEGF-induced angiogenesis. In this assay, corneas implanted with VEGF-containing filter disks exhibited a robust neovascular response in the corneal region between the disk and the corneal limbus (from which the new vessels emerge). Disks containing a vehicle solution elicited no angiogenic response. In separate studies, intraconjunctival injections of sterile water vehicle did not affect the magnitude of the VEGF-induced angiogenic response. In addition, ribozyme injections alone did not induce angiogenesis.

The dose-related effects of anti-Flt-1 or KDR ribozymes on the VEGF-induced angiogenic response were then examined. The antiangiogenic effect of the anti-Flt-1 (site 4229) and KDR (site 726) ribozymes and their attenuated controls over a dose range from 1 to 100 µg, respectively was determined. For both ribozymes, the maximal antiangiogenic response (48 and 36% for anti-Flt-1 and KDR ribozymes, respectively) was observed at a dose of 10 µg.

The anti-Flt-1 ribozyme produced a significantly greater antiangiogenic response than its attenuated control at 3 and 10 μ g (p<0.05). Its attenuated control exhibited a small but significant antiangiogenic response at doses above 10 μ g compared to vehicle treated VEGF controls (p<0.05). At its maximum, this response was not significantly greater than that observed with the lowest dose of active anti-Flt-1 ribozyme. The anti-KDR ribozyme significantly inhibited angiogenesis from 3 to 30 μ g (p<0.05). The anti-KDR attenuated control had no significant effect at any dose tested.

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Example 3. In vivo inhibition of tumor growth and metastases by VEGF-R ribozymes.

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A. Lewis Lung Carcinoma Mouse Model: Ribozymes were chemically synthesized as described above. The sequence of ANGIOZYMETM bound to its target RNA is shown in Figure 1.

The tumors in this study were derived from a cell line (LLC-HM) which gives rise to reproducible numbers of spontaneous lung metastases when propagated in vivo. The LLC-HM line was obtained from Dr. Michael O'Reilly, Harvard University. Tumor neovascularization in Lewis lung carcinoma has been shown to be VEGF-dependent. Tumors from mice bearing LLC-HM (selected for the highly metastatic phenotype by serial propagation) were harvested 20 days post-inoculation. A tumor brei suspension was prepared from these tumors according to standard protocols. On day 0 of the study, 0.5 x 10⁶ yiable LLC-HM tumor cells were injected subcutaneously (sc) into the dorsum or flank of previously untreated mice (100 µL injectate). Tumors were allowed to grow for a period of 3 days prior to initiating continuous intravenous administration of saline or 30 mg/kg/d ANGIOZYMETM via Alzet mini-pumps. One set of animals was dosed from days 3 to 17, inclusive. Tumor length and width measurements and volumes were calculated according to the formula: Volume = $0.5(length)(width)^2$. At post-inoculation day 25, animals were euthanized and lungs harvested. The number of lung macrometastatic nodules was counted. It should be noted that metastatic foci were quantified 8 days after the cessation of dosing. Ribozyme solutions were prepared to deliver to another set of animals 100, 10, 3, or 1 mg/kg/day of ANGIOZYMETM via Alzet mini-pumps. A total of 10 animals per dose or saline control group were surgically implanted on the left flank with osmotic mini-pumps prefilled with the respective test solution three days following tumor inoculation. Pumps were attached to indwelling jugular vein catheters.

Figure 2 shows the antitumor effects of ANGIOZYMETM. There is a statistically significant inhibition (p < 0.05) of primary LLC-HM tumor growth in tumors grown in the flank regions compared to saline control. ANGIOZYMETM significantly reduced (p < 0.05) the number of lung metastatic foci in animals inoculated either in the flank regions. Figure 3 illustrates the dose-dependent anti-metastatic effect of ANGIOZYMETM compared to saline control.

B. Mouse Colorectal Cancer Model. KM12L4a-16 is a human colorectal cancer cell line. On day 0 of the study, 0.5×10^6 KM12L4a-16 cells were implanted into the spleen of nude mice. Three days after tumor inoculation, Alzet minipumps were implanted and continuous subcutaneous delivery of either saline or 12, 36 or 100 mg/kg/ day of

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ANGIOZYMETM was initiated. On day 5, the spleens containing the primary tumors were removed. On day 18, the Alzet minipumps were replaced with fresh pumps so that delivery of saline or ANGIOZYMETM was continuous over a 28 day period from day 3 to day 32. Animals were euthanized on day 41 and the liver tumor burden was evaluated.

Following treatment with 100 mg/kg/day of ANGIOZYMETM, there was a significant reduction in the incidence and median number of liver metastasis (**Figure 4**). In saline-treated animals, the median number of metastases was 101. However, at the high dose of ANGIOZYMETM (100 mg/kg/day), the median number of metastases was zero.

Example 4: Effect of ANGIOZYMETM alone or in combination with chemotherapeutic agents in the mouse Lewis Lung Carcinoma Model.

Methods

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Tumor inoculations. Male C57/BL6 mice, age 6 to 8 weeks, were inoculated subcutaneously in the flank with 5 x 10^5 LLC-HM cells from brei preparations made from tumors grown in mice.

Ribozymes and controls. RPI.4610, also known as ANGIOZYME™ (SEQ ID NO: 5977), is an anti-Flt-1 ribozyme that targets site 4229 in the human Flt-1 receptor mRNA (EMBL accession no. X51602). The controls tested include RPI.13141, an attenuated version of RPI.4610 in which four nucleotides in the catalytic core are changed so that the cleavage activity is dramatically decreased. RPI.13141, however, maintains the base composition and binding arms of RPI.4610 and so is still capable of binding to the target site. The second control (RPI.13030) also has changes to the catalytic core (three) to inhibit cleavage activity, but in addition the sequence of the binding arms has been scrambled so that it can no longer bind to the target sequence. One nucleotide in the arm of RPI.13030 is also changed to maintain the same base composition as RPI.4610.

Ribozyme administrations. Ribozymes and controls were resuspended in normal saline. Administration was initiated seven days following tumor inoculation. Animals either received a daily subcutaneous injection (30 mg/kg test substance) from day 7 to day 20 or were instrumented with an Alzet osmotic minipump (12 μL/day flow rate) containing a solution of ribozyme or control. Subcutaneous infusion pumps delivered the test substances (30 mg/kg/day) from day 7 to 20 (14-day pumps, 420 mg/kg total test substance) or days 7-34 (28-day pumps, 840 mg/kg total test substance). Where indicated, chemotherapeutic agents were given in combination with ribozyme treatment. Cyclophosphamide was given by intraperitoneal administration on days 7, 9 and 11 (125 mg/kg). Gemcitabine was given by

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intraperitoneal administration on days 8, 11 and 14 (125 mg/kg). Untreated, uninstrumented animals were used as comparison. Five animals were included in each group.

Results

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The antiangiogenic ribozyme, ANGIOZYMETM, was tested in a model of Lewis lung carcinoma alone and in combination with two chemotherapeutic agents. Previously (see above), 30 mg/kg/day ANGIOZYMETM alone was determined to inhibit both primary tumor growth and lung metastases in a highly metastatic variant of Lewis lung (continuous 14-day iv deliveryvia Alzet minipump, manuscript in preparation).

In this study, 30 mg/kg/day ANGIOZYMETM delivered either as a daily subcutaneous bolus injection or as a continuous infusion from an Alzet minipump resulted in a delay in tumor growth. On average, tumor growth to 500 mm³ was delayed by ~7 days in animals being treated with ANGIOZYMETM compared to an untreated group. Growth of tumors in animals being treated with either of two attenuated controls was delayed by only ~ 2 days.

ANGIOZYMETM delivered by subcutaneous bolus was also tested in combination with either Gemcytabine or cyclophosphamide. Tumor growth delay increased by about 3 days in the presence of combination therapy with ANGIOZYMETM and Gemcytabine over the effects of either treatment alone. The combination of ANGIOZYMETM and cyclophosphamide did not increase tumor growth delay over that of cyclophosphamide alone, however, suboptimal doses of cyclophosphamide were not included in this study. Neither of the attenuated controls increased the effect of the chemotherapeutic agents.

The effect of ANGIOZYMETM on metastases to the lung was also determined in the presence and absence of additional chemotherapeutic treatment. Macrometastases to the lungs were counted in two animals in each treatment group on day 20. In the presence of ANGIOZYMETM, with or without a chemotherapeutic agent, the lung metastases were reduced to zero. Treatment with either Gemcytabine or cyclophosphamide alone (mean number of metastases 4.5 and 4, respectively) were not as effective as ANGIOZYMETM alone or when used in combination with ANGIOZYMETM. Neither of the attenuated controls increased the effect of the chemotherapeutic agents.

The effect on metastases to the lung was also determined following continuous treatment with ANGIOZYMETM. At day 20, an average of ~8 macrometastases were noted in the treatment groups which had been instrumented with Alzet minipumps (either 14- or 28-day pumps). This is a decrease in metastases of ~50% from the untreated group. Since

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ANGIOZYMETM delivered by a daily subcutaneous bolus resulted in zero metastases (Fig.4) in the two animals counted, it is possible that the additional burden of being instrumented with the minipump contributes to a slightly decreased response to ANGIOZYMETM.

Example 5: Identification of Potential Target Sites in Human VEGFR1 and/or VEGFR2 RNA

The sequence of human VEGFR1 and/or VEGFR2 genes are screened for accessible sites using a computer-folding algorithm. Regions of the RNA that do not form secondary folding structures and contain potential enzymatic nucleic acid molecule and/or antisense binding/cleavage sites are identified. An exemplary sequence of an enzymatic nucleic acid molecule of the invention is shown in Formula I and/or Formula II (SEQ ID Nos: 5977 and 5978, respectively). Other nucleic acid molecules and targets contemplated by the invention are described in Pavco et al., US Patent Application No. 09/870,161, incorporated by reference herein in its entirety. Similarly, other nucleic acid molecules of the invention, including antisense, aptamers, dsRNA, siRNA, and/or 2,5-A chimeras, can be designed to modulate the expression of the nucleic acid targets described in Pavco et al., US Patent Application No. 09/870,161.

Example 6: Selection of Enzymatic Nucleic Acid Cleavage Sites in Human VEGFR1 and/or VEGFR2 RNA

Enzymatic nucleic acid molecule target sites are chosen by analyzing sequences of human VEGFR1 receptor (for example Genbank Accession No. NM_002019), and VEGFR2 receptor (for example Genbank Accession No. NM_002253) genes and prioritizing the sites on the basis of folding. Enzymatic nucleic acid molecules are designed that can bind each target and are individually analyzed by computer folding (Christoffersen et al., 1994 J. Mol. Struc. Theochem, 311, 273; Jaeger et al., 1989, Proc. Natl. Acad. Sci. USA, 86, 7706) to assess whether the enzymatic nucleic acid molecule sequences fold into the appropriate secondary structure. Those enzymatic nucleic acid molecules with unfavorable intramolecular interactions between the binding arms and the catalytic core can be eliminated from consideration. As discussed herein, varying binding arm lengths can be chosen to optimize activity. Generally, at least 4 bases on each arm are able to bind to, or otherwise interact with, the target RNA.

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30 <u>Example 7: Chemical Synthesis and Purification of Ribozymes and Antisense for Efficient</u> Cleavage and/or blocking of VEGFR1 and/or VEGFR2 RNA

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Enzymatic nucleic acid molecules and antisense constructs are designed to anneal to various sites in the RNA message. The binding arms of the enzymatic nucleic acid molecules are complementary to the target site sequences described above, while the antisense constructs are fully complementary to the target site sequences described above. RNAi molecules (dsRNA) likewise have one strand of RNA or a portion of RNA complementarity to the target site sequence or a portion of the target site sequence. For example, complementarity within the double-strand RNAi structure is formed from two separate individual RNA strands or from self-complementary areas of a topologically closed, individual RNA strand which can be optionally circular. The nucleic acid molecules were chemically synthesized. The method of synthesis used followed the procedure for normal RNA synthesis as described above and in Usman *et al.*, (1987 J. Am. Chem. Soc., 109, 7845), Scaringe *et al.*, (1990 Nucleic Acids Res., 18, 5433) and Wincott *et al.*, supra, and made use of common nucleic acid protecting and coupling groups, such as dimethoxytrityl at the 5'-end, and phosphoramidites at the 3'-end. The average stepwise coupling yields were typically >98%.

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Nucleic acid molecules are also synthesized from DNA templates using bacteriophage T7 RNA polymerase (Milligan and Uhlenbeck, 1989, Methods Enzymol. 180, 51). Nucleic acid molecules of the invention are purified by gel electrophoresis using general methods or are purified by high pressure liquid chromatography (HPLC; See Wincott *et al.*, supra; the totality of which is hereby incorporated herein by reference) and are resuspended in water. Examples of sequences of chemically synthesized enzymatic nucleic acid molecules are shown in Formula I (SEQ ID NO: 5977), Formula II (SEQ ID NO: 5978) and in Pavco *et al.*, US Patent Application No. 09/870,161.

Example 8: Enzymatic Nucleic Acid Molecule Cleavage of VEGFR1 and/or VEGFR2 RNA Target in vitro

Enzymatic nucleic acid molecules targeted to the human VEGFR1 and/or VEGFR2 RNA are designed and synthesized as described above. These enzymatic nucleic acid molecules can be tested for cleavage activity in vitro, for example, using the following procedure. The target sequences and the nucleotide location within the VEGFR1 and/or VEGFR2 RNA are described in Pavco et al., US Patent Application No. 09/870,161.

Cleavage Reactions: Full-length or partially full-length, internally-labeled target RNA for enzymatic nucleic acid molecule cleavage assay is prepared by *in vitro* transcription in the presence of [a-32p] CTP, passed over a G 50 Sephadex column by spin chromatography and used as substrate RNA without further purification. Alternately, substrates are 5'-32P-end

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labeled using T4 polynucleotide kinase enzyme. Assays are performed by pre-warming a 2X concentration of purified enzymatic nucleic acid molecule in enzymatic nucleic acid molecule cleavage buffer (50 mM Tris-HCl, pH 7.5 at 37°C, 10 mM MgCl₂) and the cleavage reaction was initiated by adding the 2X enzymatic nucleic acid molecule mix to an equal volume of substrate RNA (maximum of 1-5 nM) that was also pre-warmed in cleavage buffer. As an initial screen, assays are carried out for 1 hour at 37°C using a final concentration of either 40 nM or 1 mM enzymatic nucleic acid molecule, *i.e.*, enzymatic nucleic acid molecule excess. The reaction is quenched by the addition of an equal volume of 95% formamide, 20 mM EDTA, 0.05% bromophenol blue and 0.05% xylene cyanol after which the sample is heated to 95°C for 2 minutes, quick chilled and loaded onto a denaturing polyacrylamide gel. Substrate RNA and the specific RNA cleavage products generated by enzymatic nucleic acid molecule cleavage are visualized on an autoradiograph of the gel. The percentage of cleavage is determined by Phosphor Imager[®] quantitation of bands representing the intact substrate and the cleavage products.

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15 Example 9: Phase I/II Study of Repetitive Dosing of ANGIOZYMETM Targeting the VEGFR1 (FLT-1) Receptor of VEGF

A ribozvme therapeutic agent ANGIOZYME™ (SEQ ID NO: 5977), was assessed by daily subcutaneous administration in a phase I/II trial for 31 patients with refractory solid tumors. Demographic information relating to patients enrolled in the study are shown in Table III. The primary study endpoint was to determine the safety and maximum tolerated dose of ANGIOZYME™. Secondary endpoints assessed ANGIOZYME™ pharmacokinetics and clinical response. Patients were treated at the following doses: 3 patients received doses of 10 mg/m²/day, 4 patients received 30 mg/m²/day, 20 patients received 100 mg/m²/day, and 4 patients received 300 mg/m²/day. All but one patient were dosed for a minimum of 29 consecutive days with 24-hour pharmacokinetic analyses on Day 1 and 29. Clinical response patients was assessed monthly. Results The data from 20 indicated ANGIOZYMETM was well tolerated, with no systemic adverse events. Figure 5 shows the plasma concentration profile of ANGIOZYMETM after a single subcutaneous dose of 10, 30, 100, or 300 mg/m². The pharmacokinetic parameters of ANGIOZYME[™] after subcutaneous bolus administration are outlined in Table IV. An MTD (maximum tolerated dose) could not be established. One patient in the 300 mg/m²/d group experienced a grade 3 injection site reaction. Patients in the other groups experienced intermittent grade 1 and grade 2 injection site reactions with erythema and induration. No systemic or laboratory toxicities were observed. Pharmacokinetic analyses demonstrated dose-dependent plasma concentrations with good bioavailability (70-90%), t1/2 = 209-384 min, and no accumulation after repeated

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doses. To date, 17/28 (61%) of evaluable patients have had stable disease for periods of one to six months and two patients (nasopharyngeal squamous cell carcinoma and melanoma) had minor clinical responses. The patient with nasopharyngeal carcinoma demonstrated central tumor necrosis as indicated by MRI. The longest period of treatment thus far has been 8 months for two patients at 100 mg/m²/d (breast, peritoneal mesothelioma).

Example 10: Down-regulation of VEGFR1 gene expression to treat gynecologic neovascularization dependent conditions

One patient in the Phase I/II trial described in Example 19 was menstruating prior to enrollment in the ANGIOZYMETM monotherapy trial. After 1-2 months on trial, the patient's menstrual cycles ceased. The patient remained on trial for approximately 11 months and did not menstruate. The patient then went off the trial for about 4 months and the menstrual Re-enrollment in the ANGIOZYMETM trial resulted in the patient's cycles resumed. menstrual cycle stopping again. This clinical observation suggests that ANGIOZYMETM is interfering with the patient's menstrual cycle, perhaps by inhibiting neovascularization of uterine tissue. This data also suggests that ANGIOZYMETM has a direct effect on the endometrial tissue or an effect on LH/FSH stimulation. These results suggest the treatment or control, using ANGIOZYME™ (SEQ ID NO: 5977) and/or other nucleic acid molecules of the instant invention, of various clinical targets and/or processes associated with female reproduction and gynecologic neovascularization, such as endometriosis, birth control, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), menopausal dysfunction, endometrial carcinoma or other condition associated with the expression of VEGFR1 and/or VEGFR2 VEGF receptors.

Example 11: Down-regulation of VEGFR1 in clinical setting

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Twenty-seven of the patients enrolled in the Phase I/II trial described in Example 19
25 had day 1 (baseline) and day 43 (six-week) serum samples assayed for VEGFR1 biomarker.

VEGFR1 levels were statistically different after six weeks of ANGIOZYME treatment

(Figure 9). Although statistical testing involving all 27 patients showed statistical support for

effects, not all patients presented with elevated levels of VEGF-R1. Since the effects of

ANGIOZYME on VEGF-R1 may only be demonstrated when sufficient levels are present at

baseline, a cutoff of 100 pg/mL was chosen and changes in this VEGF-R1 were re-analyzed.

Ten of the 27 patients presented with baseline VEGF-R1 levels in excess of 100 pg/mL. For

this subgroup VEGF-R1 levels were lower by 3-fold, p<.001. After six weeks of treatment
the average (geometric mean) of VEGF-R1 decreased for this subgroup from 419 pg/ml to

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132pg/ml, p<.001. These results show that treatment with ANGIOZYME results in a statistically significant reduction in VEGFR1 expression.

Example 22: *In vivo* inhibition of neovascularization in an ocular animal model by VEGF-R ribozymes.

Summary of the Mouse Model: A mouse model of proliferative retinopathy (Aiello et al., 1995, Proc. Natl. Acad. Sci. USA 92: 10457-10461; Robinson et al., 1996, Proc. Natl. Acad. Sci. USA 93: 4851-4856; Pierce et al., 1996, Archives of Ophthalmology 114: 1219-1228) in which neovascularization of the mouse retina is induced by exposure of 7-day old mice to 75% oxygen followed by a return to normal room air. The initial period in high oxygen causes an obliteration of developing blood vessels in the retina. Exposure to room air five days later is perceived as hypoxia by the now underperfused retina. The result is an immediate upregulation of VEGF mRNA and VEGF protein (between 6-12 hours) followed by an extensive retinal neovascularization that peaks in ~5 days. Although this model is more representative of retinopathy of prematurity than diabetic retinopathy, it is an accepted small animal model in which to study neovascular pathophysiology of the retina. In fact, intravitreal injection of certain antisense DNA constructs targeting VEGF mRNA have been found to be antiangiogenic in this model, as were soluble VEGF receptor chimeric proteins designed to bind VEGF in the vitreous humor (Aiello et al., 1995, Proc. Natl. Acad. Sci. USA 92: 10457-10461; Robinson et al., 1996, Proc. Natl. Acad. Sci. USA 93: 4851-4856; Pierce et al., 1996, Archives of Ophthalmology 114: 1219-1228).

Summary of experiment: The effect of an anti-KDR/Flk-1 ribozyme on the peak level of neovascularization was tested in the mouse model described above. As shown in Figure 10, P7 mice were removed from the hyperoxic chamber and the mice received two intraocular injections (P12 and P13) in the right eye of 10 µg RPI.4731, the anti- KDR/Flk-1 ribozyme. The left eye of each mouse was treated as a control and received intraocular injections of saline. Five days after being exposed to room air, neovascular nuclei in the retina of both eyes were counted. Data are presented in Figure 11. There was a significant decrease in retinal neovascularization (~40%) compared to the control, saline-injected eyes.

RPI.4731 sequence and chemical composition: 5'-u_sa_sc_s a_sau ucU GAu Gag gcg aaa gcc Gaa Aag aca aB-3' (SEQ ID NO: 5978)

where:

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uppercase G, A = ribonucleotides lowercase = 2'-OMe U = 2'-C-allyl uridine

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B = inverted abasic nucleotide

S = phosphorothioate internucleotide linkage

Indications

- 5 1) Tumor angiogenesis: Angiogenesis has been shown to be necessary for tumors to grow into pathological size (Folkman, 1971, PNAS 76, 5217-5221; Wellstein & Czubayko, 1996, Breast Cancer Res and Treatment 38, 109-119). In addition, it allows tumor cells to travel through the circulatory system during metastasis. Increased levels of gene expression of a number of angiogenic factors such as vascular endothelial growth factor (VEGF) have 10 been reported in vascularized and edema-associated brain tumors (Berkman et al., 1993 J. Clini. Invest. 91, 153). A more direct demostration of the role of VEGF in tumor angiogenesis was demonstrated by Jim Kim et al., 1993 Nature 362,841 wherein, monoclonal antibodies against VEGF were successfully used to inhibit the growth of rhabdomyosarcoma, glioblastoma multiforme cells in nude mice. Similarly, expression of a dominant negative 15 mutated form of the flt-1 VEGF receptor inhibits vascularization induced by human glioblastoma cells in nude mice (Millauer et al., 1994, Nature 367, 576). Specific tumor/cancer types that can be targeted using the nucleic acid molecules of the invention include but are not limited to the tumor/cancer types described under Diagnosis in Table III.
- 2) Ocular diseases: Neovascularization has been shown to cause or exacerbate ocular diseases including but not limited to, macular degeneration, neovascular glaucoma, diabetic retinopathy, myopic degeneration, and trachoma (Norrby, 1997, APMIS 105, 417-437). Aiello et al., 1994 New Engl. J. Med. 331, 1480, showed that the ocular fluid, of a majority of patients suffering from diabetic retinopathy and other retinal disorders, contains a high concentration of VEGF. Miller et al., 1994 Am. J. Pathol. 145, 574, reported elevated levels of VEGF mRNA in patients suffering from retinal ischemia. These observations support a direct role for VEGF in ocular diseases. Other factors including those that stimulate VEGF synthesis may also contribute to these indications.
- 3) <u>Dermatological Disorders:</u> Many indications have been identified which may by angiogenesis dependent including but not limited to psoriasis, verruca vulgaris, angiofibroma of tuberous sclerosis, pot-wine stains, Sturge Weber syndrome, Kippel-Trenaunay-Weber syndrome, and Osler-Weber-Rendu syndrome (Norrby, supra). Intradermal injection of the angiogenic factor b-FGF demonstrated angiogenesis in nude mice (Weckbecker et al., 1992, Angiogenesis: Key principles-Science-Technology-Medicine, ed R. Steiner) Detmar et al., 1994 J. Exp. Med. 180, 1141 reported that VEGF and its receptors were over-expressed in

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psoriatic skin and psoriatic dermal microvessels, suggesting that VEGF plays a significant role in psoriasis.

4) Rheumatoid arthritis: Immunohistochemistry and *in situ* hybridization studies on tissues from the joints of patients suffering from rheumatoid arthritis show an increased level of VEGF and its receptors (Fava *et al.*, 1994 *J. Exp. Med.* 180, 341). Additionally, Koch *et al.*, 1994 *J. Immunol.* 152, 4149, found that VEGF-specific antibodies were able to significantly reduce the mitogenic activity of synovial tissues from patients suffering from rheumatoid arthritis. These observations support a direct role for VEGF in rheumatoid arthritis. Other angiogenic factors including those of the present invention may also be involved in arthritis.

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5) Endometriosis: Various studies indicate that VEGF is directly implicated in endometriosis. In one study, VEGF concentrations measured by ELISA in peritoneal fluid were found to be significantly higher in women with endometriosis than in women without endometriosis ($24.1 \pm 15 \text{ ng/ml}$ vs $13.3 \pm 7.2 \text{ ng/ml}$ in normals). In patients with endometriosis, higher concentrations of VEGF were detected in the proliferative phase of the menstrual cycle ($33 \pm 13 \text{ ng/ml}$) compared to the secretory phase ($10.7 \pm 5 \text{ ng/ml}$). The cyclic variation was not noted in fluid from normal patients (McLaren *et al.*, 1996, *Human Reprod.* 11, 220-223). In another study, women with moderate to severe endometriosis had significantly higher concentrations of peritoneal fluid VEGF than women without endometriosis. There was a positive correlation between the severity of endometriosis and the concentration of VEGF in peritoneal fluid. In human endometrial biopsies, VEGF expression increased relative to the early proliferative phase approximately 1.6-, 2-, and 3.6-fold in midproliferative, late proliferative, and secretory endometrium (Shifren *et al.*, 1996, *J. Clin. Endocrinol. Metab.* 81, 3112-3118).

In a third study, VEGF-positive staining of human ectopic endometrium was shown to be localized to macrophages (double immunofluorescent staining with CD14 marker). Peritoneal fluid macrophages demonstrated VEGF staining in women with and without endometriosis. However, increased activation of macrophages (acid phosphatatse activity) was demonstrated in fluid from women with endometriosis compared with controls. Peritoneal fluid macrophage conditioned media from patients with endometriosis resulted in significantly increased cell proliferation ([³H] thymidine incorporation) in HUVEC cells compared to controls. The percentage of peritoneal fluid macrophages with VEGFR2 mRNA was higher during the secretory phase, and significantly higher in fluid from women with endometriosis (80 ± 15%) compared with controls (32 ± 20%). Flt-mRNA was detected in

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peritoneal fluid macrophages from women with and without endometriosis, but there was no difference between the groups or any evidence of cyclic dependence (McLaren et al., 1996, J. Clin. Invest. 98, 482-489).

In the early proliferative phase of the menstrual cycle, VEGF has been found to be expressed in secretory columnar epithelium (estrogen-responsive) lining both the oviducts and the uterus in female mice. During the secretory phase, VEGF expression was shown to have shifted to the underlying stroma composing the functional endometrium. In addition to examining the endometrium, neovascularization of ovarian follicles and the corpus luteum, as well as angiogenesis in embryonic implantation sites have been analyzed. For these processes, VEGF was expressed in spatial and temporal proximity to forming vasculature (Shweiki *et al.*, 1993, *J. Clin. Invest.* 91, 2235-2243).

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The present body of knowledge in VEGFR1 and/or VEGFR2 research indicates the need for methods to assay VEGFR1 and/or VEGFR2 activity and for compounds that can regulate VEGFR1 and/or VEGFR2 expression for research, diagnostic, and therapeutic use. As described herein, the nucleic acid molecules of the present invention can be used in assays to diagnose disease state related of VEGF, VEGFR1 and/or VEGFR2 levels. In addition, the nucleic acid molecules can be used to treat disease state related to VEGF and/or VEGFR, such as VEGFR1 and/or VEGFR2 levels.

Particular processes, diseases, or conditions that can be associated with VEGFR1 and/or VEGFR2 levels include, but are not limited to, gynecologic neovascularization, such as endometriosis, endometrial carcinoma, gynecologic bleeding disorders, irregular menstrual cycles, ovulation, premenstrual syndrome (PMS), menopausal dysfunction, other diseases and conditions discussed herein, and other diseases or conditions that are related to or respond to the levels of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2, in a cell or tissue, alone or in combination with other therapies

The use of GnRH (gonadotropin releasing hormone) agonists, Lupron Depot (Leuprolide Acetate), Synarel (naferalin acetate), Zolodex (goserelin acetate), Suprefact (buserelin acetate), Danazol, or oral contraceptives including, but not limited to, Depo-Provera or Provera (medroxyprogesterone acetate), or any other estrogen/progesterone contraceptive, are all non-limiting examples of compounds and methods that can be combined with or used in conjunction with the nucleic acid molecules of the instant invention. Various chemotherapies can be readily combined with nucleic acid molecules of the invention for the treatment of endometrial carcinoma. Common chemotherapies that can be combined with nucleic acid molecules of the instant invention include various combinations of cytotoxic drugs to kill the

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cancer cells. These drugs include but are not limited to paclitaxel (Taxol), docetaxel, cisplatin, methotrexate, cyclophosphamide, doxorubin, fluorouracil carboplatin, edatrexate, gemcitabine, vinorelbine etc. Those skilled in the art will recognize that other drug compounds and therapies can be readily combined with the nucleic acid molecules of the instant invention and are hence within the scope of the instant invention.

Animal Models

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There are several animal models in which the anti-angiogenesis effect of nucleic acids of the present invention, such as ribozymes, directed against VEGF-R mRNAs can be tested. Typically, a corneal model has been used to study angiogenesis in rat and rabbit since recruitment of vessels can easily be followed in this normally avascular tissue (Pandey *et al.*, 1995 *Science* 268: 567-569). In these models, a small Teflon or Hydron disk pretreated with an angiogenesis factor (e.g. bFGF or VEGF) is inserted into a pocket surgically created in the cornea. Angiogenesis is monitored 3 to 5 days later. Ribozymes directed against VEGF-R mRNAs would be delivered in the disk as well, or dropwise to the eye over the time course of the experiment. In another eye model, hypoxia has been shown to cause both increased expression of VEGF and neovascularization in the retina (Pierce *et al.*, 1995 *Proc. Natl. Acad. Sci.* USA. 92: 905-909; Shweiki *et al.*, 1992 *J. Clin. Invest.* 91: 2235-2243).

In human glioblastomas, it has been shown that VEGF is at least partially responsible for tumor angiogenesis (Plate *et al.*, 1992 *Nature* 359, 845). Animal models have been developed in which glioblastoma cells are implanted subcutaneously into nude mice and the progress of tumor growth and angiogenesism is studied (Kim *et al.*, 1993 *supra*; Millauer *et al.*, 1994 *supra*).

Another animal model that addresses neovascularization involves Matrigel, an extract of basement membrane that becomes a solid gel when injected subcutaneously (Passaniti *et al.*, 1992 *Lab. Invest.* 67: 519-528). When the Matrigel is supplemented with angiogenesis factors such as VEGF, vessels grow into the Matrigel over a period of 3 to 5 days and angiogenesis can be assessed. Ribozymes directed against VEGF-R mRNAs can be delivered in the Matrigel to assess anti-angiogesis effect.

Several animal models exist for screening of anti-angiogenic agents. These include corneal vessel formation following corneal injury (Burger et al., 1985 Cornea 4: 35-41; Lepri, et al., 1994 J. Ocular Pharmacol. 10: 273-280; Ormerod et al., 1990 Am. J. Pathol. 137: 1243-1252) or intracorneal growth factor implant (Grant et al., 1993 Diabetologia 36: 282-291; Pandey et al. 1995 supra; Zieche et al., 1992 Lab. Invest. 67: 711-715), vessel

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growth into Matrigel matrix containing growth factors (Passaniti et al., 1992 supra), female reproductive organ neovascularization following hormonal manipulation (Shweiki et al., 1993 Clin. Invest. 91: 2235-2243), several models involving inhibition of tumor growth in highly vascularized solid tumors (O'Reilly et al., 1994 Cell 79: 315-328; Senger et al., 1993 Cancer and Metas. Rev. 12: 303-324; Takahasi et al., 1994 Cancer Res. 54: 4233-4237; Kim et al., 1993 supra), and transient hypoxia-induced neovascularization in the mouse retina (Pierce et al., 1995 Proc. Natl. Acad. Sci. USA. 92: 905-909).

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The cornea model, described in Pandey et al. *supra*, is the most common and well characterized anti-angiogenic agent efficacy screening model. This model involves an avascular tissue into which vessels are recruited by a stimulating agent (growth factor, thermal or alkalai burn, endotoxin). The corneal model utilizes the intrastromal corneal implantation of a Teflon pellet soaked in a VEGF-Hydron solution to recruit blood vessels toward the pellet which can be quantitated using standard microscopic and image analysis techniques. To evaluate their anti-angiogenic efficacy, ribozymes are applied topically to the eye or bound within Hydron on the Teflon pellet itself. This avascular cornea as well as the Matrigel (see below) provide for low background assays. While the corneal model has been performed extensively in the rabbit, studies in the rat have also been conducted.

The mouse model (Passaniti et al., *supra*) is a non-tissue model which utilizes Matrigel, an extract of basement membrane (Kleinman et al., 1986) or Millipore[®] filter disk, which can be impregnated with growth factors and anti-angiogenic agents in a liquid form prior to injection. Upon subcutaneous administration at body temperature, the Matrigel or Millipore[®] filter disk forms a solid implant. VEGF embedded in the Matrigel or Millipore[®] filter disk would be used to recruit vessels within the matrix of the Matrigel or Millipore[®] filter disk which can be processed histologically for endothelial cell specific vWF (factor VIII antigen) immunohistochemistry, Trichrome-Masson stain, or hemoglobin content. Like the cornea, the Matrigel or Millipore[®] filter disk are avascular; however, it is not tissue. In the Matrigel or Millipore[®] filter disk model, ribozymes are administered within the matrix of the Matrigel or Millipore[®] filter disk to test their anti-angiogenic efficacy. Thus, delivery issues in this model, as with delivery of ribozymes by Hydron- coated Teflon pellets in the rat cornea model, are minimized due to the homogeneous presence of the ribozyme within the respective matrix.

These models offer a distinct advantage over several other angiogenic models listed previously. The ability to use VEGF as a pro-angiogenic stimulus in both models is highly desirable since ribozymes target only VEGFr mRNA. In other words, the involvement of

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other non-specific types of stimuli in the comea and Matrigel models is not advantageous from the standpoint of understanding the pharmacologic mechanism by which the anti-VEGFr mRNA ribozymes produce their effects. In addition, the models allow for testing the specificity of the anti-VEGFr mRNA ribozymes by using either aFGF or bFGF as a pro-angiogenic factor. Vessel recruitment using FGF should not be affected in either model by anti-VEGFr mRNA ribozymes. Other models of angiogenesis, including vessel formation in the female reproductive system using hormonal manipulation (Shweiki et al., 1993 supra); a variety of vascular solid tumor models which involve indirect correlations with angiogenesis (O'Reilly et al., 1994 supra; Senger et al., 1993 supra; Takahasi et al., 1994 supra; Kim et al., 1993 supra); and retinal neovascularization following transient hypoxia (Pierce et al., 1995 supra), were not selected for efficacy screening due to their non-specific nature, although they can be useful models due to a demonstrated correlation between VEGF and angiogenesis.

Other model systems to study tumor angiogenesis is reviewed by Folkman, 1985 Adv. 15 Cancer. Res., 43, 175.

Use of murine models

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For a typical systemic study involving 10 mice (20 g each) per dose group, 5 doses (1, 3, 10, 30 and 100 mg/kg daily over 14 days continuous administration), approximately 400 mg of ribozyme, formulated in saline would be used. A similar study in young adult rats (200 g) would require over 4 g. Parallel pharmacokinetic studies involve the use of similar quantities of ribozymes further justifying the use of murine models.

Ribozymes and Lewis lung carcinoma and B-16 melanoma murine models

Identifying a common animal model for systemic efficacy testing of ribozymes is an efficient way of screening ribozymes for systemic efficacy.

The Lewis lung carcinoma and B-16 murine melanoma models are well accepted models of primary and metastatic cancer and are used for initial screening of anti-cancer agents. These murine models are not dependent upon the use of immunodeficient mice, are relatively inexpensive, and minimize housing concerns. Both the Lewis lung and B-16 melanoma models involve subcutaneous implantation of approximately 106 tumor cells from metastatically aggressive tumor cell lines (Lewis lung lines 3LL or D122, LLc-LN7; B-16-BL6 melanoma) in C57BL/6J mice. Alternatively, the Lewis lung model can be produced by the surgical implantation of tumor spheres (approximately 0.8 mm in diameter). Metastasis

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also can be modeled by injecting the tumor cells directly intraveneously. In the Lewis lung model, microscopic metastases can be observed approximately 14 days following implantation with quantifiable macroscopic metastatic tumors developing within 21-25 days. The B-16 melanoma exhibits a similar time course with tumor neovascularization beginning 4 days following implantation. Since both primary and metastatic tumors exist in these models after 21-25 days in the same animal, multiple measurements can be taken as indices of efficacy. Primary tumor volume and growth latency as well as the number of micro- and macroscopic metastatic lung foci or number of animals exhibiting metastases can be quantitated. The percent increase in lifespan can also be measured. Thus, these models provide suitable primary efficacy assays for screening systemically administered ribozymes/ribozyme formulations.

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In the Lewis lung and B-16 melanoma models, systemic pharmacotherapy with a wide variety of agents usually begins 1-7 days following tumor implantation/inoculation with either continuous or multiple administration regimens. Concurrent pharmacokinetic studies can be performed to determine whether sufficient tissue levels of ribozymes can be achieved for pharmacodynamic effect to be expected. Furthermore, primary tumors and secondary lung metastases can be removed and subjected to a variety of *in vitro* studies (*i.e.* target RNA reduction).

Flt-1, KDR and/or flk-1 protein levels can be measured clinically or experimentally by FACS analysis. Flt-1, KDR and/or flk-1 encoded mRNA levels can be assessed by Northern analysis, RNase-protection, primer extension analysis and/or quantitative RT-PCR. Ribozymes that block flt-1, KDR and/or flk-1 protein encoding mRNAs and therefore result in decreased levels of flt-1, KDR and/or flk-1 activity by more than 20% in vitro can be identified.

Ribozymes and/or genes encoding them are delivered by either free delivery, liposome delivery, cationic lipid delivery, adeno-associated virus vector delivery, adenovirus vector delivery, retrovirus vector delivery or plasmid vector delivery in these animal model experiments (see above).

Subjects can be treated by locally administering nucleic acids targeted against VEGF-R by direct injection. Routes of administration include, but are not limited to, intravascular, intramuscular, subcutaneous, intraarticular, aerosol inhalation, oral (tablet, capsule or pill form), topical, systemic, ocular, intraperitoneal and/or intrathecal delivery.

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Surgically induced models of endometriosis have been developed in rats, mice, and rabbits. Non-human primates demonstrate spontaneous endometriosis, but surgical induction can also be used. In addition to the surgical technique, cycle monitoring can be performed by daily vaginal cytology in primates. For all of the surgically induced models of endometriosis, the following general procedure is used. An initial laparotomy is performed to implant tissue from a donor animal. A portion of one uterine horn (or one complete horn in the case of mice) is removed. The endometrium of this piece of uterus is separated from the myometrium and cut into small segments (4-10 mm2). Segments (approximately 3) are sutured to various locations within the abdominal cavity (peritoneum, intestinal mesentery vessels, uterus, broad ligament). Cummings and Metcalf (1996) attached whole segments of mouse uterus without separating the endometrium from the myometrium. Implants are allowed to grow for 3-6 A second laparotomy is sometimes performed to verify development of endometriosis-like foci (vascularization and cysts filled with clear fluid). This second laparotomy was done in the studies by Quereda et al., (1996) and Stoeckemann et al., (1995). After 3-6 weeks post-surgery and/or following visualization of endometriosis, drug treatment is initiated and continued for a prescribed period of time. At the termination of these studies, animals are euthanized. Endpoints include, but are not limited to, changes in the surface area of the implants and tissue mass of the ectopic endometrial implants (see for example Brogniez et al., 1995, Human Reprod. 10, 927-931; Cummings et al., 1996, Tox. Appl. Pharm. 138, 131-139; Cummings and Metcalf, 1996, Proc. Soc. Exp. Biol. Med. 212, 332-337; D'Hooghe et al., 1996, Fertility and Sterility. 66, 809-813; Ouereda et al., 1996, Eur. J. Obstet. Gynecol. Rep. Biol. 67, 35-40; and Stoeckemann et al., 1995, Human Reprod. 10, 3264-3271).

Combination therapies

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Gemcytabine and cyclophosphamide are non-limiting examples of chemotherapeutic agents that can be combined with or used in conjunction with the nucleic acid molecules (e.g. ribozymes and antisense molecules) of the instant invention. Those skilled in the art will recognize that other anti-angiogenic and/or anti-cancer compounds and therapies can be similarly be readily combined with the nucleic acid molecules of the instant invention (e.g. ribozymes and antisense molecules) and are hence within the scope of the instant invention. Such compounds and therapies are well known in the art (see for example Cancer: Principles

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and Pranctice of Oncology, Volumes 1 and 2, eds Devita, V.T., Hellman, S., and Rosenberg, S.A., J.B. Lippincott Company, Philadelphia, USA; incorporated herein by reference) and include, without limitations, folates, antifolates, pyrimidine analogs, fluoropyrimidines, purine analogs, adenosine analogs, topoisomerase I inhibitors, anthrapyrazoles, retinoids, antibiotics, anthacyclins, platinum analogs, alkylating agents, nitrosoureas, plant derived compounds such as vinca alkaloids, epipodophyllotoxins, tyrosine kinase inhibitors, taxols, radiation therapy, surgery, nutritional supplements, gene therapy, radiotherapy, for example 3D-CRT, immunotoxin therapy, for example ricin, and monoclonal antibodies. Specific examples of chemotherapeutic compounds than can be combined with or used in conjuction with the nucleic acid molecules of the invention include but are not limited to Paclitaxel; Docetaxel; Methotrexate; Doxorubin; Edatrexate; Vinorelbine; Tomaxifen; Leucovorin; 5fluoro uridine (5-FU); Irinotecan (CAMPTOSAR® or CPT-11 or Camptothecin-11 or Campto); Cisplatin; Carboplatin; Amsacrine; Cytarabine; Bleomycin; Mitomycin C; Dactinomycin; Mithramycin; Hexamethylmelamine; Dacarbazine; L-asperginase; Nitrogen mustard; Melphalan, Chlorambucil; Busulfan; Ifosfamide; 4-hydroperoxycyclophosphamide, Thiotepa; Tamoxifen, Herceptin; IMC C225; ABX-EGF: and combinations thereof.

Diagnostic uses

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The nucleic acid molecules of this invention (e.g., enzymatic nucleic acid molecules) can be used as diagnostic tools to examine genetic drift and mutations within diseased cells or to detect the presence of VEGF and/or VEGFr, such as VEGFR1 and/or VEGFR2 RNA in a The close relationship between enzymatic nucleic acid molecule activity and the structure of the target RNA allows the detection of mutations in any region of the molecule which alters the base-pairing and three-dimensional structure of the target RNA. By using multiple enzymatic nucleic acid molecules described in this invention, one can map nucleotide changes which are important to RNA structure and function in vitro, as well as in cells and tissues. Cleavage of target RNAs with enzymatic nucleic acid molecules can be used to inhibit gene expression and define the role (essentially) of specified gene products in the progression of disease. In this manner, other genetic targets can be defined as important mediators of the disease. These experiments can lead to better treatment of the disease progression by affording the possibility of combinational therapies (e.g., multiple enzymatic nucleic acid molecules targeted to different genes, enzymatic nucleic acid molecules coupled with known small molecule inhibitors, or intermittent treatment with combinations of enzymatic nucleic acid molecules and/or other chemical or biological molecules). Other in

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vitro uses of enzymatic nucleic acid molecules of this invention are well known in the art, and include detection of the presence of mRNAs associated with VEGF, VEGFR1 and/or VEGFR2-related condition. Such RNA is detected by determining the presence of a cleavage product after treatment with an enzymatic nucleic acid molecule using standard methodology.

In a specific example, enzymatic nucleic acid molecules which cleave only wild-type or mutant forms of the target RNA are used for the assay. The first enzymatic nucleic acid molecule is used to identify wild-type RNA present in the sample and the second enzymatic nucleic acid molecule is used to identify mutant RNA in the sample. As reaction controls, synthetic substrates of both wild-type and mutant RNA are cleaved by both enzymatic nucleic acid molecules to demonstrate the relative enzymatic nucleic acid molecule efficiencies in the reactions and the absence of cleavage of the "non-targeted" RNA species. The cleavage products from the synthetic substrates also serve to generate size markers for the analysis of wild-type and mutant RNAs in the sample population. Thus each analysis requires two enzymatic nucleic acid molecules, two substrates and one unknown sample which is combined into six reactions. The presence of cleavage products is determined using an RNAse protection assay so that full-length and cleavage fragments of each RNA can be analyzed in one lane of a polyacrylamide gel. It is not absolutely required to quantify the results to gain insight into the expression of mutant RNAs and putative risk of the desired phenotypic changes in target cells. The expression of mRNA whose protein product is implicated in the development of the phenotype (i.e., VEGFR1 and/or VEGFR2) is adequate to establish risk. If probes of comparable specific activity are used for both transcripts, then a qualitative comparison of RNA levels will be adequate and will decrease the cost of the initial diagnosis. Higher mutant form to wild-type ratios are correlated with higher risk whether RNA levels are compared qualitatively or quantitatively. The use of enzymatic nucleic acid molecules in diagnostic applications contemplated by the instant invention is described, for example, in Usman et al., US Patent Application No. 09/877,526, George et al., US Patent Nos. 5,834,186 and 5,741,679, Shih et al., US Patent No. 5,589,332, Nathan et al., US Patent No 5,871,914, Nathan and Ellington, International PCT publication No. WO 00/24931, Breaker et al., International PCT Publication Nos. WO 00/26226 and 98/27104, and Sullenger et al., US Patent Application Serial No. 09/205,520.

Additional Uses

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Uses of sequence-specific enzymatic nucleic acid molecules of the instant invention can have many of the same applications for the study of RNA that DNA restriction endonucleases have for the study of DNA (Nathans *et al.*, 1975 *Ann. Rev. Biochem.* 44:273). For example,

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the pattern of restriction fragments can be used to establish sequence relationships between two related RNAs, and large RNAs can be specifically cleaved to fragments of a size more useful for study. The ability to engineer sequence specificity of the enzymatic nucleic acid molecule is ideal for cleavage of RNAs of unknown sequence. Applicant has described the use of nucleic acid molecules to down-regulate gene expression of target genes in bacterial, microbial, fungal, viral, and eukaryotic systems including plant, or mammalian cells.

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All patents and publications mentioned in the specification are indicative of the levels of skill of those skilled in the art to which the invention pertains. All references cited in this disclosure are incorporated by reference to the same extent as if each reference had been incorporated by reference in its entirety individually.

One skilled in the art would readily appreciate that the present invention is well adapted to carry out the objects and obtain the ends and advantages mentioned, as well as those inherent therein. The methods and compositions described herein as presently representative of preferred embodiments are exemplary and are not intended as limitations on the scope of the invention. Changes therein and other uses will occur to those skilled in the art, which are encompassed within the spirit of the invention, are defined by the scope of the claims.

It will be readily apparent to one skilled in the art that varying substitutions and modifications may be made to the invention disclosed herein without departing from the scope and spirit of the invention. Thus, such additional embodiments are within the scope of the present invention and the following claims.

The invention illustratively described herein suitably may be practiced in the absence of any element or elements, limitation or limitations which is not specifically disclosed herein. Thus, for example, in each instance herein any of the terms "comprising", "consisting essentially of" and "consisting of" may be replaced with either of the other two terms. The terms and expressions which have been employed are used as terms of description and not of limitation, and there is no intention that in the use of such terms and expressions of excluding any equivalents of the features shown and described or portions thereof, but it is recognized that various modifications are possible within the scope of the invention claimed. Thus, it should be understood that although the present invention has been specifically disclosed by preferred embodiments, optional features, modification and variation of the concepts herein disclosed may be resorted to by those skilled in the art, and that such modifications and variations are considered to be within the scope of this invention as defined by the description and the appended claims.

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In addition, where features or aspects of the invention are described in terms of Markush groups or other grouping of alternatives, those skilled in the art will recognize that the invention is also thereby described in terms of any individual member or subgroup of members of the Markush group or other group.

5 Other embodiments are within the following claims.

TABLE I

Characteristics of Ribozymes

Group I Introns

Size: ~200 to >1000 nucleotides.

Requires a U in the target sequence immediately 5' of the cleavage site.

Binds 4-6 nucleotides at 5' side of cleavage site.

Over 75 known members of this class. Found in *Tetrahymena thermophila* rRNA, fungal mitochondria, chloroplasts, phage T4, blue-green algae, and others.

RNAseP RNA (M1 RNA)

Size: ~290 to 400 nucleotides.

RNA portion of a ribonucleoprotein enzyme. Cleaves tRNA precursors to form mature tRNA.

Roughly 10 known members of this group all are bacterial in origin.

Hammerhead Ribozyme

Size: ~13 to 40 nucleotides.

Requires the target sequence UH immediately 5' of the cleavage site.

Binds a variable number of nucleotides on both sides of the cleavage site.

14 known members of this class. Found in a number of plant pathogens (virusoids) that use RNA as the infectious agent (Figure 1 and 2)

Hairpin Ribozvme

Size: ~50 nucleotides.

Requires the target sequence GUC immediately 3' of the cleavage site.

Binds 4-6 nucleotides at 5' side of the cleavage site and a variable number to the 3' side of the cleavage site.

Only 3 known member of this class. Found in three plant pathogen (satellite RNAs of the tobacco ringspot virus, arabis mosaic virus and chicory yellow mottle virus) which uses RNA as the infectious agent (Figure 3).

Hepatitis Delta Virus (HDV) Ribozyme

Size: 50 - 60 nucleotides (at present).

Sequence requirements not fully determined.

Binding sites and structural requirements not fully determined, although no sequences 5' of cleavage site are required.

Only 1 known member of this class. Found in human HDV (Figure 4).

Neurospora VS RNA Ribozyme

Size: ~144 nucleotides (at present)

Cleavage of target RNAs recently demonstrated. Sequence requirements not fully determined. Binding sites and structural requirements not fully determined. Only 1 known member of this class. Found in *Neurospora* VS RNA (Figure 5).

Table II:

A. 2.5 µmol Synthesis Cycle ABI 394 Instrument

Reagent	Equivalents	Amount	Wait Time* DNA Wait Time* 2'- O-methyl	Wait Time* 2'- O-methyl	Wait Time* RNA
Phosphoramidites	6.5	163 µL	45 sec	2.5 min	7.5 min
S-Ethyl Tetrazole	23.8	238 µL	45 sec	2.5 min	7.5 min
Acetic Anhydride	100	233 µL	5 sec	5 sec	5 sec
N-Methyl Imidazole	186	233 µL	5 sec	5 sec	5 sec
TCA	176	2.3 mL	21 sec	21 sec	21 sec
lodine	11.2	1.7 mL	45 sec	45 sec	45 sec
Beaucage	12.9	645 µL	100 sec	300 sec	300 sec
Acetonitrile	NA A	6.67 mL	NA	NA	A
	B. 0.2 µmol Syn	thesis Cycle	B. 0.2 µmol Synthesis Cycle ABI 394 Instrument	Į.	
Reagent	Equivalents	Amount	Wait Time* DNA Wait Time* 2'- O-methyl	Wait Time* 2'- O-methyl	Wait Time* RNA

Reagent	Equivalents	Amount	Wait Time* DNA Wait Time* 2'- O-methyl	Wait Time* 2'- O-methyl	Wait Time* RNA
Phosphoramidites	15	31 µL	45 sec	233 sec	465 sec
S-Ethyl Tetrazole	38.7	31 µL	45 sec	233 min	465 sec
Acetic Anhydride	655	124 µL	5 sec	5 sec	5 sec
N-Methyl Imidazole	1245	124 µL	5 sec	5 sec	5 sec
TCA	200	732 µL	10 sec	10 sec	10 sec
lodine	20.6	244 µL	15 sec	15 sec	15 sec

ວູ		Wait Time* Ribo	360sec	360 sec	10 sec	10 sec	15 sec	30 sec	200 sec	NA
sec 300 sec NA		Wait Time* 2'-O- methyl	180 sec	180 min	10 sec	10 sec	15 sec	30 sec	200 sec	NA
100 sec 300 sec NA NA	vell Instrument	Wait Time* DNA	oes 09	90 sec	10 sec	10 sec	15 sec	30 sec	100 sec	NA
232 µL 100 2.64 mL NA	C. 0.2 µmol Synthesis Cycle 96 well Instrument	Amount DNA/2'-O-methyl/Ribo	40/60/120 µL	40/60/120 µL	50/50/50 µL	50/50/50 µL	250/500/500 µL	80/80/80 µL	80/120/120	1150/1150/1150 µL
7.7 NA	C. 0.2	Equivalents DNA/2'-O-methyl/Ribo	22/33/66	70/105/210	265/265/265	502/502/502	238/475/475	6.8/6.8/6.8	34/51/51	NA
Beaucage Acetonitrile		Reagent	Phosphoramidites	S-Ethyl Tetrazole	Acetic Anhydride	N-Methyl Imidazole	TCA	lodine	Beaucage	Acetonitrile

* Wait time does not include contact time during delivery.

Table III: Patient Demographics

Dose cohort				2 1/1/2	
(mg/m²)	Pt#	Age -	Sex	Diagnosis	Doses
10	1001	49	F	NSC Lung	29
10	1002	65	F	liposarcoma	120
10	1003	49	M	nasopharyngeal CA	109
30	1004	35	M	non-small cell lung	1
30	1005	45	F	melanoma (ocular)	113
30	1006	57	M	colon	199
30	1007	39	F	epitheliod hemangioendothelioma	198
100	1008	52	M	adrenal CA	57
100	1009	44	F	breast	35
100	1010	62	F	renal	134
300	1011	24	F	melanoma	31
300	1012	57	M	renal cell	178
300	1013	53	M	nasopharyngeal SCCA	29
300	1014	64	F	peritoneal mesothelioma	324
100	1015	65	M	melanoma	140
100	1016	77	F	breast	265
			F	melanoma	35
100	1017		1		33
100	1017 1018	26	F	melanoma	7
		26 69			
100	1018		F	melanoma	7
100 100	1018 1019	69	F F	melanoma endometrial sarcoma	7 500
100 100 100	1018 1019 1020	69 65	F F M	melanoma endometrial sarcoma carcinoid	7 500 124
100 100 100 100	1018 1019 1020 1021	69 65 59	F F M M	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma	7 500 124 34
100 100 100 100 100	1018 1019 1020 1021 1022	69 65 59 43	F F M M	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma colorectal	7 500 124 34 8
100 100 100 100 100 100	1018 1019 1020 1021 1022 1023	69 65 59 43 78 40 52	F F M M M	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma colorectal breast	7 500 124 34 8 50
100 100 100 100 100 100 100	1018 1019 1020 1021 1022 1023 1024	69 65 59 43 78 40	F F M M M F F	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma colorectal breast parotid adenocarcinoma	7 500 124 34 8 50 285
100 100 100 100 100 100 100 100	1018 1019 1020 1021 1022 1023 1024 1025	69 65 59 43 78 40 52 39 55	F F M M F F F	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma colorectal breast parotid adenocarcinoma breast	7 500 124 34 8 50 285 71
100 100 100 100 100 100 100 100 100	1018 1019 1020 1021 1022 1023 1024 1025 1026	69 65 59 43 78 40 52 39 55	F F M M F F F F	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma colorectal breast parotid adenocarcinoma breast breast breast	7 500 124 34 8 50 285 71 34
100 100 100 100 100 100 100 100 100	1018 1019 1020 1021 1022 1023 1024 1025 1026 1027	69 65 59 43 78 40 52 39 55	F F M M F F F F F F	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma colorectal breast parotid adenocarcinoma breast breast breast breast	7 500 124 34 8 50 285 71 34 36
100 100 100 100 100 100 100 100 100 100	1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028	69 65 59 43 78 40 52 39 55	F F M M F F F F M	melanoma endometrial sarcoma carcinoid gallbladder adeno carcinoma colorectal breast parotid adenocarcinoma breast breast breast breast breast melanoma	7 500 124 34 8 50 285 71 34 36 29

One patient taken off study due to progressive disease. Allowed to resume $\mbox{ ANGIOZYME on a compassionate basis.}$

As of September 1, 2001, all patients were off study. (Although one patient resumed treatment per above note)

Table IV Pharmacokinetic parameters of ANGIOZYME after bolus subcutaneous administration.

	10 m	11m2	30 m	alm²	100 m	a/m²	300 m	alm²
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Day I Cmax (ug/mL)	0.43	0.07	0.62	0.28	3.17	69.0	8.91	2.93
AUCt (ug*hr/mL)	2.60	1.43	6.04	2.70	34.14	2.28	89.87	21.68
AUCinf (ug*hr/mL)	4.40	90.0	7.99	1.66	37.51	1.91	101.57	13.47
t(1/2) (hr)	3.62	0.79	7.32	6.94	4.58	0.02	9.26	6.20
$CL/F(L/hr/m^2)$	2.24	0.08	3.73	0.92	2.96	0.61	2.99	0.43
Day 29 Cmax (ug/mL)	0.35	0.19	1.17	0.53	3.23	0.35	8.93	6.71
AUCt (ug*hr/mL)	2.11	1.31	7.29	1.16	31.87	1.91	119.42	65.84
AUCinf (ug*hr/mL)	3.38	1.31	8.54	2.46	33.61	2.16	132.73	67.82
t(1/2) (hr)	4.49	1.60	3.26	1.01	4.66	0.35	7.24	0.70
CL/F (L/hr/m²)	2.49	1.48	3.69	0.94	3.21	0.56	2.72	1.40

Table V: Human FLT DNAzyme and Substrate Sequence

Pos	Substrate	Seq ID No	DNAzyme	Seq ID No
17	UCCUCUCG G CUCCUCCC	1	GGGAGGAG GGCTAGCTACAACGA CGAGAGGA	1703
28	CCUCCCCG G CAGCGGCG	2	CGCCGCTG GGCTAGCTACAACGA CGGGGAGG	1704
31	CCCCGCA G CGGCGCG	3	CGCCGCCG GGCTAGCTACAACGA TGCCGGGG	1705
34	CGGCAGCG G CGGCGGCU	4	AGCCGCCG GGCTAGCTACAACGA CGCTGCCG	1706
37	CAGCGGCG G CGGCUCGG	5	CCGAGCCG GGCTAGCTACAACGA CGCCGCTG	1707
40	CGGCGGCG G CUCGGAGC	6	GCTCCGAG GGCTAGCTACAACGA CGCCGCCG	1708
47	GGCUCGGA G CGGGCUCC	7	GGAGCCCG GGCTAGCTACAACGA TCCGAGCC	1709
51	CGGAGCGG G CUCCGGGG	8	CCCCGGAG GGCTAGCTACAACGA CCGCTCCG	1710
59	GCUCCGGG G CUCGGGUG	9	CACCCGAG GGCTAGCTACAACGA CCCGGAGC	1711
65	GGGCUCGG G UGCAGCGG	10	CCGCTGCA GGCTAGCTACAACGA CCGAGCCC	1712
67	GCUCGGGU G CAGCGGCC	11	GGCCGCTG GGCTAGCTACAACGA ACCCGAGC	1713
70	CGGGUGCA G CGGCCAGC	12	GCTGGCCG GGCTAGCTACAACGA TGCACCCG	1714
73	GUGCAGCG G CCAGCGGG	13	CCCGCTGG GGCTAGCTACAACGA CGCTGCAC	1715
77	AGCGGCCA G CGGGCCUG	14	CAGGCCCG GGCTAGCTACAACGA TGGCCGCT	1716
81	GCCAGCGG G CCUGGCGG	15	CCGCCAGG GGCTAGCTACAACGA CCGCTGGC	1717
86	CGGGCCUG G CGGCGAGG	16	CCTCGCCG GGCTAGCTACAACGA CAGGCCCG	1718
89	GCCUGGCG G CGAGGAUU	17	AATCCTCG GGCTAGCTACAACGA CGCCAGGC	1719
95	CGGCGAGG A UUACCCGG	18	CCGGGTAA GGCTAGCTACAACGA CCTCGCCG	1720
98	CGAGGAUU A CCCGGGGA	19	TCCCCGGG GGCTAGCTACAACGA AATCCTCG	1721
108	CCGGGGAA G UGGUUGUC	20	GACAACCA GGCTAGCTACAACGA TTCCCCGG	1722
111	GGGAAGUG G UUGUCUCC	21	GGAGACAA GGCTAGCTACAACGA CACTTCCC	1723
114	AAGUGGUU G UCUCCUGG	22	CCAGGAGA GGCTAGCTACAACGA AACCACTT	1724
122	GUCUCCUG G CUGGAGCC	23	GGCTCCAG GGCTAGCTACAACGA CAGGAGAC	1725
128	UGGCUGGA G CCGCGAGA	24	TCTCGCGG GGCTAGCTACAACGA TCCAGCCA	1726
131	CUGGAGCC G CGAGACGG	25	CCGTCTCG GGCTAGCTACAACGA GGCTCCAG	1727
136	GCCGCGAG A CGGGCGCU	26	AGCGCCCG GGCTAGCTACAACGA CTCGCGGC	1728
140	CGAGACGG G CGCUCAGG	27	CCTGAGCG GGCTAGCTACAACGA CCGTCTCG	1729
142	AGACGGGC G CUCAGGGC	28	GCCCTGAG GGCTAGCTACAACGA GCCCGTCT	1730
149	CGCUCAGG G CGCGGGC	29	GCCCCGCG GGCTAGCTACAACGA CCTGAGCG	1731
151	CUCAGGGC G CGGGGCCG	30	CGGCCCCG GGCTAGCTACAACGA GCCCTGAG	1732
156	GGCGCGGG G CCGGCGGC	31	GCCGCCGG GGCTAGCTACAACGA CCCGCGCC	1733
160	CGGGGCCG G CGGCGGCG	32	CGCCGCCG GGCTAGCTACAACGA CGGCCCCG	1734
163	GGCCGGCG G CGGCGAAC	33	GTTCGCCG GGCTAGCTACAACGA CGCCGGCC	1735
166	CGGCGGCG G CGAACGAG	34	CTCGTTCG GGCTAGCTACAACGA CGCCGCCG	1736
170	GGCGGCGA A CGAGAGGA	35	TCCTCTCG GGCTAGCTACAACGA TCGCCGCC	1737
178	ACGAGAGG A CGGACUCU	36	AGAGTCCG GGCTAGCTACAACGA CCTCTCGT	1738
182	GAGGACGG A CUCUGGCG	37	CGCCAGAG GGCTAGCTACAACGA CCGTCCTC	1739
188	GGACUCUG G CGGCCGGG	38	CCCGGCCG GGCTAGCTACAACGA CAGAGTCC	1740
191	CUCUGGCG G CCGGGUCG	39	CGACCCGG GGCTAGCTACAACGA CGCCAGAG	1741
196	GCGGCCGG G UCGUUGGC	40	GCCAACGA GGCTAGCTACAACGA CCGGCCGC	1742
199	GCCGGGUC G UUGGCCGG	41	CCGGCCAA GGCTAGCTACAACGA GACCCGGC	1743
203	GGUCGUUG G CCGGGGGA	42	TCCCCCGG GGCTAGCTACAACGA CAACGACC	1744
212	CCGGGGGA G CGCGGGCA	43	TGCCCGCG GGCTAGCTACAACGA TCCCCCGG	1745
214	GGGGGAGC G CGGGCACC	44	GGTGCCCG GGCTAGCTACAACGA GCTCCCCC	1746
218	GAGCGCGG G CACCGGGC	45	GCCCGGTG GGCTAGCTACAACGA CCGCGCTC	1747
220	GCGCGGC A CCGGGCGA	46	TCGCCCGG GGCTAGCTACAACGA GCCCGCGC	1748
225	GGCACCGG G CGAGCAGG	47	CCTGCTCG GGCTAGCTACAACGA CCGGTGCC	1749
229	CCGGGCGA G CAGGCCGC	48	GCGGCCTG GGCTAGCTACAACGA TCGCCCGG	1750

233 GGGAGCAG G COGUCIGG 49 CGACGCGG GCTAGCTACAACGA GCGCTGCT 1751 236 CAGAGGC G GUGCGCC 50 GGGGAGG GGCTAGCACAGA GGCCTGCT 1752 238 CAGGCCGG G UCGCGCUC 51 GAGCGCGG GCTAGCACAGA GGCCTGCT 1753 241 GCCGCGUC G CGCUCACCA 52 GGTGAGCG GGCTAGCACAGA GCGGCCT 1754 243 GCCGCGUC A CCAUGUC 52 ATGGTAGA GGCTAGCTACAACGA GAGCGGC 1754 244 UCGCGCGUC A CCAUGUC 54 GACCATGG GGCTAGCACAGA GAGCGGC 1756 247 UCGCGCUC A CCAUGUC 54 GACCATGG GGCTAGCACAGA GAGCGGC 1756 250 CGUCACCA UCGUCACCA 55 GCTGACCA GGCTAGCTACAACGA GAGCGCA 1756 251 CCAUCACCA UCGUCACC 55 GCTGACCA GGCTAGCTACAACGA GAGCGCA 1756 252 CCAUCACCA UCAUGUGG 56 GTAGCTGA GGCTAGCTACAACGA GCTGAGCG 1757 253 UCACCAUG G UCAGGUCA 56 GTAGCTGA GGCTAGCTACAACGA CATGGTGA 1758 256 GGUCAGCU CUGGGGC 57 CCCAGTTAG GGCTAGCTACAACGA ACGTGACC 1759 257 CAUCGUCA CUGGGGC 58 TGTCCCAG GGCTAGCTACAACGA ACGTGACC 1759 258 ACUGGGAC ACCCGGGG 59 CCCCGGTG GGCTAGCTACAACGA ACGTGACC 1761 259 ACUCCCUGU CUGUCACG 61 CAGCCAGG GGCTAGCTACAACGA ACGTGACC 1762 279 GGGGUCCU GUGUCACC 62 GCGCACAG GGCTAGCTACAACGA ACGTGACC 1762 281 CUCCUGU CUGUCACC 62 GCGCACAG GGCTAGCTACAACGA ACGACGA 1766 284 CCUCCUGU CUCUCACC 63 ACGCGGC GGCTAGCTACAACGA ACGACGA 1766 286 UGCUGCGC CUCCCAG 64 GCAGCGC GCCTAGCTACAACGA ACGACGA 1766 287 CUCCUCCU CUCUCAC 65 GACCAGCG GCCTAGCTACAACGA ACGACGA 1766 288 CUCUCACCU CUCUCAC 66 CUCAGCGG GCCTAGCTACAACGA ACGCGCA 1767 299 GCUCAGCU CUCUCAC 67 CAGCAGGA GCCTAGCTACAACGA ACGCGCACA 1767 290 GCUCAGCU CUCUCAC 67 CAGCAGGA GGCTAGCTACAACGA ACGCGCACA 1767 291 GUCAGCU CUCUCAC 67 CAGCAGGA GGCTAGCTACAACGA ACGCACA 1767 292 GCUCAGCU CUCUCAC 67 CAGCAGGA GGCTAGCTACAACGA ACGCACA 1767 294 GUUCAGCU CUCUCACC 67 CAGCAGGA GGCTAGCTACAACGA ACGCACA 1767 295 GCUCAGCU CUCUCACC 67 CAGCAGGA GGCTAGCT					
258 CAGGCCGC G UCGCGCUC 51 GAGCGCGA GGCTAGCTACACAGA GCGCCTO 1753 241 GCCGCGUC G GGCUCACC 52 GGTGAGCG GGCTAGCTACACGA GACCGGC 1754 243 CGCGUCACC GUCACCAU 52 AGTGGAGCG GGCTAGCTACACAGA GACCGGC 1755 247 UCGCGCUC A CCAUGGUC 54 GACCATGG GGCTAGCTACAACGA GCGACGGC 1755 250 CGCUCACC A UGGUCAGC 55 GCTGACCA GGCTAGCTACAACGA GAGCGCGA 1756 250 CGCUCACC A UGGUCAGC 55 GCTGACCA GGCTAGCTACAACGA GAGCGCGA 1756 251 UCACCAUG G UCACCAU 56 GTAGCTAGA GGCTAGCTACAACGA CATGGTGA 1758 252 UCACCAUG G UCACCAU 56 GTAGCTAGA GGCTAGCTACAACGA CATGGTGA 1759 253 UCACCAUG G UCACCAUG 57 CCCAGTAG GGCTAGCTACAACGA CATGGTGA 1759 254 CAUGUGAC A CUGGGACA 58 TGTCCCA GGCTAGCTACAACGA CATGGTGA 1759 260 GGUCAGCU A CUGGGACA 58 TGTCCCAG GGCTAGCTACAACGA AGCTAGCA 1760 266 CUACUGGG A CACCGGGG 59 CCCCGGTG GGCTAGCTACAACGA AGCTAGCA 1762 267 ACACCGGG G UCCUGCGU 61 GACCCGGG GGCTAGCTACAACGA ACCCAGTT 1762 274 ACACCGGG G UCCUGCGC 61 GACCCGGG GGCTAGCTACAACGA CCCAGTT 1763 279 GGGGUCCU G CUGUGCGC 62 GCCACAGA GGCTAGCTACAACGA ACGACACA 1762 282 GUCCUGCU G UGCCCCCCU 63 AGCGCGCA GGCTAGCTACAACGA AGCAGCAC 1764 284 CCUGCUGU G UGCCCCCCU 63 AGCGCGCA GGCTAGCTACAACGA ACGACACA 1767 286 UGCUGCUG C GCCCUCC 65 GAGCAGC GGCTAGCTACAACGA ACGACACA 1767 286 UGCUGCUG C CUCAGCUG 66 CTGACCAG GGCTAGCTACAACGA ACACGAGA 1766 286 UGCUGCUG C CUCAGCUG 66 CTGACCAG GGCTAGCTACAACGA CACGCAGC 1767 287 GCUCCUCCA CUCAGCUG 66 CTGACCAG GGCTAGCTACAACGA CACGCAGC 1767 289 GCUCCUCCA CUCAGUG 66 CTGACCAG GGCTAGCTACAACGA ACCAGCAG 1767 299 GCUCAGCU G UUCACCC 65 GAGCAGC GGCTAGCTACAACGA ACCAGCAG 1770 303 AGCUUCU G CUCAGCUG 67 CACGTGAG GGCTAGCTACAACGA ACGCAGCA 1771 304 DGCUUCUC A CAGGAUCU 71 AGATCCTG GGCTAGCTACAACGA AGCCAGC 1771 310 UGCUUCUC A CAGGAUCU 71 AGATCCTG GGCTAGCTACAACGA AGCCAGC 1771 311 CACCAGG A UUCAGUU 72 GACAGCAG GGCTAGCTACAACGA AGCCAGC 1771 312 CACCAGCA A UUCAGUU 73 AACCTGA GGCTAGCTACAACGA CCTGTGAG 1771 313 AGUCUCA A UUCAAAAU 74 TATTTTAA GGCTAGCTACAACGA CTTTTAAT 1776 314 AUUAAAAG A UCAGGUU 77 AACCTGA GGCTAGCTACAACGA CTTTTAAT 1776 315 UAGUUCAG G UUCAACGG GCCAGCAC 79 GCTAGCTACAACGA CTTTTAAT 1770 316 GCACCAGCA A UCAACAC	233	GCGAGCAG G CCGCGUCG	49	CGACGCGG GGCTAGCTACAACGA CTGCTCGC	1751
241 GCGGGGUC G CGCUCACC 52 GGTGAGCG GCTAGCTAAACGA GACGGCGC 1754 243 CGGGUCGC G CUCACCAU 53 ATGGTGAG GGCTAGCTAAACGA GACGACGCG 1755 247 UGGCGCUC A CAGUGGUC 54 GACATTGG GGCTAGCTACAACGA GAGGCGGA 1756 250 CGGUCACC A UGGUCAC 56 GTGACCA GGCTAGCTACAACGA CATGGTA 1757 253 UCACCAUG G UCACUCGG 57 CCCAGTAG GGCTAGCTACAACGA CATGGTA 1757 257 CAUGGUCA C UGGGGAC 58 TGTCCCAG GGCTAGCTACAACGA TACCCAGT 1759 266 CAUCUGGU A COGGGGG 59 CCCGGTGAG GGCTAGCTACAACGA TACCCAGT 1761 268 ACUGGGAC A CCGGGGGG 59 CCCGGTGAGCTACAACGA GCCCAGTTA 1761 274 ACACCGGG G UCCUGCUG 61 CAGCACGA GGCTAGCTACAACGA CCCAGTTA 1762 279 GGGGUCU G UCUGGCGC 62 GCGCACAG GGCTAGCTACAACGA AGCACCAGG 1765 281 CUGUCUCG GCUGCU G 63 ACGCGGG GGCTAGCTACAACGA AGCACCAGC 1765 286 UCUCUCGU G CUCAGCGC 66 CTAGACGA GGCTAACCTACAACGA AGCACCAGC 1767	236	AGCAGGCC G CGUCGCGC	50	GCGCGACG GGCTAGCTACAACGA GGCCTGCT	1752
243 CGGGUCGC G CUCACCAU 53 ATGGTGAG GGCTAGCTACAACGA GCGACGCG 1755 247 UGGCGCCC A CCAUGGUC 54 GACCATGG GGCTAGCTACAACGA GAGCGGA 1756 250 CGCUCACC A UGGUCACC 55 GCTAGCCTACAACGA GGTAGCTGACAGGA GATGGGCG 1757 253 UCACCAUG G UCAGCUAC 55 GCTAGCCTACAACGA GGTGAGCG 1757 253 UCACCAUG G UCAGCUAC 56 GTAGCTGA GGCTAGCTACAACGA CATGGTGA 1758 257 CAUGGUCAC A UGGGACA 55 CCCAGTAG GGCTAGCTACAACGA CATGGTGA 1758 258 CGUCACC A UGGGACA 58 TGTCCCAG GGCTAGCTACAACGA CATGGTGA 1759 260 GGUCAGCU A UGGGACA 58 TGTCCCAG GGCTAGCTACAACGA CCCAGTAG 1759 266 CUACUGGG A CACCGGGG 59 CCCCGGTG GGCTAGCTACAACGA CCCAGTAG 1760 268 ACUGGGAC A CCGGGGG 59 CCCCGGTG GGCTAGCTACAACGA CCCAGTAG 1761 268 ACUGGGAC A CCGGGGG 60 GACCCCGG GGCTAGCTACAACGA CCCAGTAG 1762 274 ACACCGGG G UCCUGCUG 61 CAGCAGGA GGCTAGCTACAACGA CCCAGTTG 1763 279 GGGGUCCU G UGGUCGCC 62 GCCACAG GGCTAGCTACAACGA ACGACCCC 1764 282 GUCCUGCU G UGGCGCGCU 63 AGCGCGCA GGCTAGCTACAACGA ACGACCAC 1765 284 CCUGCUGU G UGGCGCGCU 65 GACCAGCA GGCTAGCTACAACGA ACGACCAG 1765 286 UGCUGUCG G CGCUGCUC 65 GACCAGCA GGCTAGCTACAACGA ACCACCAG 1766 287 UGCUGCUG G CUGCUCAG 66 CTAGCAGCA GGCCAAGCA GCCACAGCA 1766 288 CUGUGUCG G CUGCUCAG 66 CTAGCAGCA GGCCAAGCA GCCACAGCA 1766 299 GCUGCCUC C CUGCUCAC 66 GCACACGA GGCTAGCTACAACGA ACCCACAG 1766 290 GCUGCCUC C CUGCUCAC 66 GCACACGA GGCTAGCTACAACGA ACCCACAG 1766 290 GCUGCACU G UUGUCUCC 70 GTGAGCAG GGCACAG GGCACAG 1766 310 UGCUCCUC A CAGGAUCU 71 AGATCCTG GGCTAGCTACAACGA ACCGACAG 1771 310 UGCUCCUC A CAGGAUCU 72 AGATCCTGCAACGA AGCCAGAC 1771 320 AGGAUCUA G UUCACAC 70 GTGAGAG GGCACAG AGCTAGCT CAACGA ACCTAGAC 1771 321 AUGACAGA GUCAGAC CUGCAGC 66 CTGACCTACAACGA ACCTAGAC 1771 322 AGGAUCUA G UUCACAC 70 GTGAGAG GGCACAG TAGACGA CCTTGTAG 1772 326 UAGUUCAA A UUAAAAGA 77 TAGACCAGA GGCTACCTACAACGA TTGAACTA 1772 327 AGCCACAG AUCAGUU 73 AACCTGA GGCTACCTACAACGA TTGAACTA 1773 328 AGCUCAAA A UUAAAAGA 77 TAGACCAGA GGCTACCTACAACGA CCTTTTAT 1778 348 GAUCCUGA A UUCAAAAU 74 ATTTGAA GGCTAGCTACAACGA CTTTTAT 1778 348 GAUCCUGA A UUCAAAAU 74 ATTTGAA GGCTAGCTACAACGA CTTTTAT 1778 349 GGCACCCA G CACAUCAU 81 ATGACTAG GGCTAG	238	CAGGCCGC G UCGCGCUC	51	GAGCGCGA GGCTAGCTACAACGA GCGGCCTG	1753
247 UCGCGCUC A CCAUGGUC 54 GACCATGG GGCTAGCTAACAGA GAGCGCGA 1756 250 CGCUCACC A UGGUCAGC 55 GCTGACCA GGCTAGCTACAAGA GGTTAGCG 1758 251 UCACCAUG G UCACUAC 56 GTGAGCTAG GGCTAGCTACAAGA GATGGTGA 1758 257 CAUGUGGA C UCACUGGG 57 CCCAGTAG GGCTAGCTACAAGA TGACCATG 1759 266 GUACUGGGA C ACCGGGGG 58 TGTCCCAG GGCTAGCTACAAGA GCCAGTTAG 1761 268 ACUGGGAC A CCGGGGGG 59 CCCCGGTG GGCTAGCTACAAGA CCCAGTTAG 1762 268 ACUGGGAC A CCGGGGGC 60 GACCCGGG GGCTAGCTACAACGA CCCAGTTAG 1762 274 ACACCGGG G UCCUGCUG 61 CAGCACGG GGCTAGCTACAACGA CCCAGTG 1762 274 ACACCGGG G UCGCCGC 62 GCCACACG GGCTAGCTACAACGA AGCACGG 1765 284 CUGUCUCU G UCGGCCU 63 AGCGGCG GGCTAGCTACAACGA AGCACGG 1766 286 UCGUUCUC G GCCUCCA 65 GACACGAG GGCACACGA 1767 289 CUGUCUC G CUGUCUC 69 CAGCACGA GGCTACCTACAACGA ACCACCACA 1770 299	241	GCCGCGUC G CGCUCACC	52	GGTGAGCG GGCTAGCTACAACGA GACGCGGC	1754
250	243	CGCGUCGC G CUCACCAU	53	ATGGTGAG GGCTAGCTACAACGA GCGACGCG	1755
253	247	UCGCGCUC A CCAUGGUC	54	GACCATGG GGCTAGCTACAACGA GAGCGCGA	1756
257 CAUGGUCA G CUACUGGG 57 CCCAGTAG GGCTAGCTACAACGA TGACCATG 1759 260 GGUCAGCU A CUGGGACA 58 TGTCCCAG GGCTAGCTACAACGA AGCTGAC 1760 266 CUACUGGG A CACCGGGG 59 CCCCGGTG GGCTAGCTACAACGA CCCAGTG 1761 268 ACUGGGAC A CCGGGGUC 60 GACCCCGG GGCTAGCTACAACGA CCCAGT 1762 274 ACACCGGG G UCCUGUG 61 CAGCAGGA GGCTAGCTACAACGA AGCAGCACT 1764 282 GUCCUGCU G UGGGGCC 63 AGCGGGCA GGCTAGCTACAACGA AGCAGCACT 1765 284 CCUGCUGU G UGCGCGCC 63 AGCGGCG GGCTAGCTACAACGA ACAGCACTACTACGA 1766 286 UGCUGUCG G CUGCUC 65 GAGCAGCG GGCTAGCTACAACGA ACACCACTA 1767 288 CUGUGUCG G CUGCUCC 66 CTBACCAG GGCTAGCTACAACGA ACACCACTA 1768 291 UGCGCCCA G UCUGUCC 68 GCAGACAG GGCTAGCTACAACGA AGCACCACTA 1768 295 GCUCACCU G UCUCUCC 69 GAAACAG GGCTAGCTACAACGA AGCAGCACTA 1770 301 UGCUCUC A CAGGALUC 70 GTAGACAG GGCTAGCTACAACGA AGCAGCACTA 1771	250	CGCUCACC A UGGUCAGC	55	GCTGACCA GGCTAGCTACAACGA GGTGAGCG	1757
260 GGUCAGCU A CUGGGACA 58 TGTCCCAG GGCTAGCTACAACGA AGCTACC 1760 266 CUACUGGG A CACCGGGG 59 CCCCGGTG GGCTAGCTACAACGA CCCAGTTACTACGA 1761 266 ACUGGGAC A CCCGGGGG 60 GACCCAGG GGCTAGCTACAACGA CCCAGTTACTACAACGA 1762 274 ACACCGGG G UCCUGCUG 61 CAGCACAG GGCTAGCTACAACGA CCCGGTGT 1763 279 GGGGGCU G UGCUGCUG 62 GCCCACAG GGCTAGCTACAACGA ACGCGCG 1766 284 CCUGCUGU G CGCUGCUC 64 GCAGCAGG GGCTAGCTACAACGA ACGCAGCA 1766 286 UGCUGIGG G CUCCUCAG 66 CTGAGCAG GGCTAGCTACAACGA ACGCAGCA 1769 296 GUGUCCCA 66 CTGAGCAG GGCTAGCTACAACGA AGCGACAG 1769 299 GCUCACCU G CUCUCCAC 69 GAAGCAGA GGCTAGCTACAACGA AGCGTAGCT 1771 301 MGCUUCUC A CAGGAUCU 71 AGATCAGA GGCTAGCTACAACGA AGCAGACA 1772 315 CUCACAGG UCUACAGUU 72 GAACTAGA <	253	UCACCAUG G UCAGCUAC	56	GTAGCTGA GGCTAGCTACAACGA CATGGTGA	1758
266 CUACUGGG A CACCGGGG 59 CCCCGGTG GGCTAGATCAACGA CCCAGTAG 1761 268 ACUGGGAC A CCGGGGUC 60 GACCCCGG GGCTAGCTACAACGA CTCCCAGT 1762 274 ACACCGGG G UCCUGCUG 61 CAGCAGGA GGCTAGCTACAACGA CCGGTGT 1763 279 GGGGUCCU G UGUGGCC 62 GGCACACA GGCTAGCTACAACGA AGGACCC 1764 282 GUCCUGCU G UGCGCGCC 63 AGGGGCA GGCTAGCTACAACGA ACAGCACC 1765 284 CCUGUGU G CGCGUGC 64 GCAGCGG GGCTAGCTACAACGA ACAGCACA 1767 286 UGCUGGC G CUGCUCA 65 GAGCAGCG GGCTAGCTACAACGA ACAGCACA 1767 286 UGUGCGCG G CUGCUCAG 66 CTGAGCAG GGCTAGCTACAACGA ACAGCACA 1768 291 UGCGCGCU G CUGUCUCC 67 CAGCTGAG GGCTAGCTACAACGA AGCGCA 1769 295 GCUCACCU G CUGUCUCC 69 GAAGCAG GGCTAGCTACAACGA AGCCGCA 1770 299 GCUCAGCU G CUGUCUCAC 70 GTGAGAAG GGCTAGCTACAACGA AGCAGCA 1771 310 MGCUGUCU A CAGGAUCU 71 AGATCTAGA GGCTAGCTACAACGA AGCAGCA 1772 310 MGCUCACAGG A UCUAGGUU 72 GAACTAGA GGCTAGCTACAACGA AGCAGCA 1773 320 AGGAUCUA G UUCAAAAU	257	CAUGGUCA G CUACUGGG	57	CCCAGTAG GGCTAGCTACAACGA TGACCATG	1759
268 ACUSGGAC A CCGGGGUC 60 GACCCOGG GGCTAGCTACAACGA GTCCCAGT 1762 274 ACACCGGG G UCCUGCUG 61 CAGCAGGAG GGCTAGCTACAACGA AGGACCCC 1764 279 GGGGUCCU G CUGUGCGC 62 GCGCACAG GGCTAGCTACAACGA AGGACCC 1764 282 GUCCUGCU G UGCGCGCU 63 AGCGCGCA GGCTAGCTACAACGA ACAGCAGCA 1765 284 CCUGCUGU G CGCGUCCC 65 GAGCAGCA GGCTAGCTACAACGA ACAGCAGG 1766 286 UGUGCGCG C CUGCUCCAG 65 CAGACAGC GGCTAGCTACAACGA ACAGCACACA 1769 288 UGUGCGCG C CUCAGCUG 67 CAGCTGAG GGCTAGCTACAACGA AGCGCACAC 1769 291 UGCGCCU G CUCAGCUG 68 CAGACAG GGCTAGCTACAACGA AGCGCACAC 17769 295 GCUCAGCU G CUCUCAC 68 CAGACAG GGCTAGCTACAACGA AGCTGACC 1770 299 GCUCAGCU G CUUCUCAC 70 GTGAAGAG GGCTAGCTACAACGA AGCTGAC 1771 301 AGCUGUCU G CUUCUCAC 70 GTGAAGAG GGCTAGCTACAACGA AGCAGCACATTTA 310 UGCUCUCU A CAGGAUCU 71 AGATCAGA GGCTAGCTACAACGA AGCAGCATTATA 310 UGCUCUCU A CAGGAUCU 71 AGATCAGA GGCTAGCTACAACGA CCTGTGAA 320 AGGAUCUA G UUCAAA	260	GGUCAGCU A CUGGGACA	58	TGTCCCAG GGCTAGCTACAACGA AGCTGACC	1760
274 ACACCGGG G UCCUGCUG 61 CAGCAGGA GGCTAGCTACAACGA CCCGGTGT 1763 279 GGGGUCCU G UGUGCGCC 62 GCGCACAG GGCTAGCTACAACGA AGCACGAC 1765 282 GUCCUGCU G UGCGCGCU 63 AGCGCGCA GGCTAGCTACAACGA AGCAGGAC 1765 284 CCUGCUGU G CGCGCUCC 64 GCAGCGCG GCTAGCTACAACGA AGCAGGAC 1766 286 UGCUGUGC G CGCUGCUC 65 GAGCAGCG GGCTAGCTACAACGA CGCACACACACACACACACACACACACACACA	266	CUACUGGG A CACCGGGG	59	CCCCGGTG GGCTAGCTACAACGA CCCAGTAG	1761
279 GGGGUCCU G UGGCGCCU 62 GCGCACAG GGCTAGCTACAACGA AGGACCC 1764 282 GUCCUGCU G UGCGCGCU 63 AGGGGCA GGCTAGCTACAACGA AGCAGCAG 1765 284 CCUGCUGU G CGCGCUGC 64 GCAGCGG GGCTAGCTACAACGA ACAGCAG 1766 286 UGCUGUGC G CGCUGCU 65 GACAGCG GGCTAGCTACAACGA ACAGCAGA 1767 288 CUGUGCGC G CUGCUCAG 66 CTGAGCAG GGCTAGCTACAACGA AGCGCAGA 1768 291 UGCGGCU G CUCAGCUG 67 CACCTGAG GGCTAGCTACAACGA AGCGGCACAGC 1770 299 GCUCAGCU G CUCUCUCAC 69 GAAGCAGA GGCTAGCTACAACGA AGCAGCC 1771 303 AGCUGUCU G CUUCUCAC 70 GTGAGAGA GGCTAGCTACAACGA AGCAGCA 1773 310 UGCUUCUC A CAGGAUCU 71 AGATCCTG GGCTAGCTACAACGA AGCAGCA 1773 310 AGGUUCA G UUCAAAAU 71 AGATCCTACAACGA TAGATCAACAGA CTTAGAACGA 1773 326 UAGUUCAG G UUCAAAAU 74 ATTTTAAA GGCTAGCTACAACGA TTTAGATC 1777 341 AUUAAAAGA 75 TCTTTTAA GGCTAGCTACAACGA TTTAAA 1777	268	ACUGGGAC A CCGGGGUC	60	GACCCCGG GGCTAGCTACAACGA GTCCCAGT	1762
282 GUCCUGCU G UGCGCCGC 63 AGCGGCA GGCTAGCTACAACGA AGCAGGAC 1765 284 CCUGCUGU G CGCGCUGCC 64 GCAGCGC GGCTAGCTACAACGA ACAGCAGCA 1766 286 UGCUGUGC G CGCUGCUC 65 GAGCAGC GGCTAGCTACAACGA GCACAGCA 1766 288 CUGUGUGC G CUGCUCAG 66 CTGAGCAG GGCTAGCTACAACGA AGCGCACAG 1768 291 UGCGCGCU G CUCCUCUC 68 GCAGACAG GGCTAGCTACAACGA AGCGCCACA 1776 296 GCUCAGCU G CUCUCUCC 69 GAAGCAG GGCTAGCTACAACGA AGCCGCCA 1770 303 AGCUGUCU G CUCUCAC 70 GTGAGAAG GGCTAGCTACAACGA AGCTGAGC 1771 310 UGCUCUC A CAGGAUCU 71 AGATCAG GGCTAGCTACAACGA AGCAGCT 1773 315 CUCACAGG A UCCAGGUU 71 AGACTGAG GGCTAGCTACAACGA CTGTAGCA 1777 320 AGGAUCUA G UUCAAAAU 74 ATTTTGAA GGCTAGCTACAACGA TAGATCCT 1775 326 UAGUCAG G UUCAAAAU 74 ATTTTAAA AGCTAGCTACAACGA TTGAACCA 1777 341 AUUAAAAGA A UCAGAGUU 77 AAACTCAG GGCTAGCTACAACGA TTGAACCA	274	ACACCGGG G UCCUGCUG	61	CAGCAGGA GGCTAGCTACAACGA CCCGGTGT	1763
284 CCUGCUGU G CGCGCUGC 64 GCAGCGC GGCTAGCTACAACGA ACAGCAGG 1766 286 UGCUGUGC G CGCUGCUC 65 GAGCAGCG GGCTAGCTACAACGA GCACACGA 1767 288 CUGUGCG G CUGCUCAG 66 CTGAGCAG GGCTAGCTACAACGA GCGCACACA 1768 291 UGCGGCGCU G CUCAGCUG 67 CAGCTGAG GGCTAGCTACAACGA AGCGCCA 1770 296 GCUGCUCA G CUGCUUC 69 GAAGCAG GGCTAGCTACAACGA AGCGTAGC 1771 303 AGCUGUCU G CUUCUCAC 70 GTGAGAGA GGCTAGCTACAACGA AGCATGAC 1772 310 UGCUCUCA C ACAGGAUCU 71 AGATCTG GGCTAGCTACAACGA AGCATGAC 1773 315 CUCACAGG A UCUAGGUU 72 GAACTAGA GGCTAGCTACAACGA CTGTGAG 1774 320 AGGAUCUA G UCUAGGUU 73 AACCTGAA GGCTAGCTACAACGA CTGTGAG 1774 322 AGGAUCUAG A UUAAAAGA 75 TCTTTTAA GGCTAGCTACAACGA CTGAACCT 1777 341 AUUAAAAGA 176 GTTCAGGA GGCTAGCTACAACGA CTTTTAA 1778 348 GAUCCUGA C UUAAAAGA 77 AAACTCAG GGCTACCAACGA CTTTTAA 1778 341 <	279	GGGGUCCU G CUGUGCGC	62	GCGCACAG GGCTAGCTACAACGA AGGACCCC	1764
286 UGCUGUGC G CGCUGCUC 65 GAGCAGCG GGCTAGCTACAACGA GCACAGCA 1767 288 CUGUGCGC G CUGUGCGG GCUGCUCAG G CTGAGCAG GGCTAGCTACAACGA AGCGCACAG 1769 291 UGCGCGCU G CUCAGCUG 67 CAGCTGAG GGCTAGCTACAACGA AGCGCCA 1769 299 GCUCAGCU G CAGACAG GGCTAGCTACAACGA AGCTGAGC 1771 303 AGCUGUU G CTGAGAGG GGCTAGCTACAACGA AGCAGGC 1771 310 UGCUUCUC A CAGGAUCU 71 AGATCCTG GGCTAGCTACAACGA AGCAGGT 1772 310 UGCUUCUC A CAGGAUU 72 GAACTGAA GGCTAGCTACAACGA AGACCCT 1775 326 UAGUUCAG GUCAGAUU 73 AACCTGAA GGCTAGCTACAACGA CTGAGACTA 1776 333 GGUUCAAA UUAAAAGA 75 TCTTTATAA GGCTAGCTACAACGA CTGAGACA 1777 AAACTCAG GGCTAGCTACAACGA	282	GUCCUGCU G UGCGCGCU	63	AGCGCGCA GGCTAGCTACAACGA AGCAGGAC	1765
288 CUGUGCGC G CUGCUCAG 66 CTGAGCAG GGCTAGCTACAACGA GCGCACAG 1768 291 UGCGCGCU G CUCAGCUG 67 CAGCTGAG GGCTAGCTACAACGA AGCGCGCA 1769 296 GCUGCUCA G CUGCUUGC 68 GCAGACAG GGCTAGCTACAACGA AGCGCGC 1770 303 AGCUGCU G UCUGCUCC 69 GAAGCAGA GGCTAGCTACAACGA AGCAGCAC 1771 310 UGCUUCUC A CAGGAUCU 71 AGATCTG GGCTAGCTACAACGA AGACAGCA 1773 315 CUCACAGG A UCUAGGUU 72 GAACTAGA GGCTAGCTACAACGA CTGAACTA 1773 320 AGGAUCUA G UUCAGGUU 73 AACCTGAA GGCTAGCTACAACGA CTGAACTA 1776 320 AGGAUCUA G UUCAGGUU 74 ATTTTGAA GGCTAGCTACAACGA TCAGATCC 1777 341 AUUAAAAGA 75 TCTTTTAA GGCTAGCTACAACGA TCAGATCC 1777 344 AUUAAAAG CUCUAAAAA 75 TCTTTAAA GGCTAGCTACAACGA TCAGTTCA 1779 348 GAUCCAGA A CUGAGUU 77 AAACTCAG GGCTAGCTACAACGA TCAGTTCA 1779 353 UGAACUGA G CUCAGCAC 80 GTGCTGGG GGCTAGCTACACGA TCTTTAA	284	CCUGCUGU G CGCGCUGC	64	GCAGCGCG GGCTAGCTACAACGA ACAGCAGG	1766
291 UGCGCGCU G CUCAGCUG 67 CAGCTGAG GGCTAGCTACAACGA AGCGCCCA 1769 296 GCUGCUCA G CUGUCUGC 68 GCAGACAG GGCTAGCTACAACGA TGAGCACC 1770 299 GCUCAGCU G UCUCUCAC 69 GAAGCAGA GGCTAGCTACAACGA AGCTAGC 1771 303 AGCUGUCU G CUCUCAC 70 GTGAGAAG GGCTAGCTACAACGA AGACAGCA 1772 310 UGCUUCUC A CAGGAUCU 71 AGATCTG GGCTAGCTACAACGA GACAACGA 1773 315 CUCACAGG A UCUAGUU 72 GAACTAGA GGCTAGCTACAACGA CTGTGAG 1774 320 AGGAUCUA G UUCAGAUU 73 AACCTGAA GGCTAGCTACAACGA CTGTGAG 1776 326 UAGUUCAG G UUCAAAAU 74 ATTTTAA GGCTAGCAACGA CTTTAAT 1776 333 GGUCAAA A UUAAAAGA 75 TCTTTTTAA GGCTAGCAACGA CTTTTAAT 1777 341 AUUAAAAG A UUAAAAG 75 CTTTTAA GCTAGCTACAACGA TCAGGATC 1779 353 UGAACUGA G UUAAAAG 78 CTTTTAA GCTACAACGA TCATTAA 1779 354 AUAAAGG A CCCCAGC 79 GCTGGGTG GGCTAGCTACACAGA TCTTTAA 1781	286	UGCUGUGC G CGCUGCUC	65	GAGCAGCG GGCTAGCTACAACGA GCACAGCA	1767
296 GCUGCUCA G CUGUCUGC 68 GCAGACAG GGCTAGCTACAACGA TGAGCAGC 1770 299 GCUCAGCU G UCUGCUC 69 GAAGCAGA GGCTAGCTACAACGA AGACAGCT 1771 303 AGCUGUCU G CUUCUCAC 70 GTGAGAGA GGCTAGCTACAACGA AGACACCT 1772 310 UGCUUCUC A CAGGAUCU 71 AGATCTCTG GGCTAGCTACAACGA GAGAAGCA 1773 315 CUCACAGG A UCUAGUUC 72 GAACTACA GGCTAGCTACAACGA CTGTGAGT 1773 320 AGGAUCUA G UUCAGGUU 73 AACCTGAA GGCTAGCTACAACGA CTGAACTA 1776 326 UAGUUCAG G UUCAAAAU 74 ATTTGAA GGCTAGCTACAACGA CTTTAAT 1776 331 GGUCAAA A UUAAAAGA 75 TCTTTTAA GGCTACAACGA CTTTTAAT 1777 341 AUUAAAAG A UCUGAAC 76 GTTCAGGA GGCTAGCACACA TTTGAACCA CTTTTAAT 1778 353 UGAACUGA G UUUAAAAG 78 CTTTTAAA GGCTACAACGA TCAGTTCA 1779 353 UGAACUGA G UUAAAAG 78 CTTTTAAA GGCTACAACGA CTTTTAAA 1781 362 UUUAAAAG G CACCAGC 80 GTGCTGGG GGCTACAACGA CTTTTAAA 1781 <t< td=""><td>288</td><td>CUGUGCGC G CUGCUCAG</td><td>66</td><td>CTGAGCAG GGCTAGCTACAACGA GCGCACAG</td><td>1768</td></t<>	288	CUGUGCGC G CUGCUCAG	66	CTGAGCAG GGCTAGCTACAACGA GCGCACAG	1768
299 GCUCAGCU G UCUGCUC 69 GAAGCAGA GGCTAGCTACAACGA AGCTGAGC 1771 303 AGCUGUCU G CUUCUCAC 70 GTGAGAAG GGCTAGCTACAACGA AGACAGCT 1772 310 UGCUUCUC A CAGGAUCU 71 AGATCCTG GGCTAGCTACAACGA AGACAGCT 1773 315 CUCACAGG A UCUAGUUC 72 GAACTACA GGCTAGCTACAACGA AGACAGC 1777 316 CUCACAGG A UCUAGUUC 72 GAACTACA GGCTAGCTACAACGA CCTGTGAG 1774 320 AGGAUCUA G UUCAGGUU 73 AACCTGAA GGCTAGCTACAACGA TAGATCCT 1775 326 UAGUUCAG G UUCAAAAU 74 ATTTGAA GGCTAGCTACAACGA TAGATCCT 1775 333 GGUUCAAA A UUAAAAGA 75 TCTTTTAA GGCTAGCTACAACGA TTTGAACC 1777 341 AUUAAAAG A UCUGAAC 76 GTTCAGGA GGCTAGCTACAACGA TTTGAACC 1777 342 GAUCCUGA A CUGAGUUU 77 AAACTCAG GGCTAGCTACAACGA TCAGGATC 1779 353 UGAACUGA G UUUAAAAG 78 CTTTTAAA GGCTAGCTACAACGA TCAGGATC 1779 354 GAUCCUGA CUGAGUUU 77 AAACTCAG GGCTAGCTACAACGA TCAGGATC 1779 355 UGAACUGA G UUUAAAAG 78 CTTTTAAA GGCTAGCTACAACGA TCAGGATC 1779 362 UUUAAAAG G CACCCAGC 79 GCTGGGTG GGCTAGCAACGA TCAGTTCA 1780 362 UUUAAAAG G CACCCAGC 79 GCTGGGTG GGCTAGCTACAACGA TCAGTTCA 1780 364 UAAAAAGGC A CCCCAGC 80 GTGCTGGG GGCTAGCTACAACGA CCTTTTAA 1781 365 GGCACCCA G CACAUCAU 81 ATGATGTG GGCTAGCTACAACGA GCTGTTTA 1782 369 GGCACCCA G CACAUCAU 81 ATGATGTG GGCTAGCTACAACGA GCTGGTGTG 1783 371 CACCCAGCA AUCAUGC 82 GCATGATG GGCTAGCTACAACGA GCTGGGTG 1785 373 CCCAGCAC A UCAUGCAA 83 TTGCATGA GGCTAGCTACAACGA GTGCTGCGG 1785 376 AGCACUC A UGCAAGCA 84 TGCTTGCA GGCTAGCTACAACGA GTGCTGCGG 1786 378 CACAUCAU G CAAGCAGG 85 CCTGCTTG GGCTAGCTACAACGA ATCATTG 1787 382 UCAUGCAA G CAGGCCAG 86 CTGGCTG GGCTAGCTACAACGA ATCATTG 1787 382 UCAUGCAA CAGGCACC 87 GTGTCTG GGCTAGCTACAACGA CTGCTTGC 1788 383 GGCAGCCA A CAUCAUCU 89 AGATGAG GGCTAGCTACAACGA CTGCTTGC 1790 393 GGCCAGAC A CAUCAUCU 89 AGATGAG GGCTAGCTACAACGA CTGCTTGC 1791 394 GACACUC A UGCCAAU 91 ATGGAGA GGCTAGCTACAACGA CTGCTTGC 1791 395 GACACUC G CAUCUCCA 90 TGGAGATG GGCTAGCTACAACGA CTGCTTGC 1791 405 CAGCCAGA C CUCCCAAU 91 ATTGGAGA GGCTAGCTACAACGA ATTGGATGA 1792 407 UCUCCAAU G CAGGGGG 92 CCCCTGCA GGCTAGCTACAACGA ATTGGATGA 1792 408 GACACUC G CAUCUCCA 90 TGGAGATG GGCTAGCTACAACGA TTGCCCC 1796 421 GGGAAGCA G CCCAUAA	291	UGCGCGCU G CUCAGCUG	67	CAGCTGAG GGCTAGCTACAACGA AGCGCGCA	1769
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432 CAUAAAUG G UCUUUGCC 98 GGCAAAGA GGCTAGCTACAACGA CATTTATG 1800			96	ACCATTTA GGCTAGCTACAACGA GGGCTGCT	1798
			97	AAAGACCA GGCTAGCTACAACGA TTATGGGC	1799
438 HGGHGHTHI G COHGAAH 90 ATTTOAGG GGGDAGGDAGGA AAAGAGA 1001		CAUAAAUG G UCUUUGCC			1800
	438	UGGUCUUU G CCUGAAAU	99	ATTTCAGG GGCTAGCTACAACGA AAAGACCA	1801
445 UGCCUGAA A UGGUGAGU 100 ACTCACCA GGCTAGCTACAACGA TTCAGGCA 1802	445	UGCCUGAA A UGGUGAGU	100	ACTCACCA GGCTAGCTACAACGA TTCAGGCA	1802

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448	CUGAAAUG G UGAGUAAG	101	CTTACTCA GGCTAGCTACAACGA CATTTCAG	1803
452	AAUGGUGA G UAAGGAAA	102	TTTCCTTA GGCTAGCTACAACGA TCACCATT	1804
461	UAAGGAAA G CGAAAGGC	103	GCCTTTCG GGCTAGCTACAACGA TTTCCTTA	1805
468	AGCGAAAG G CUGAGCAU	104	ATGCTCAG GGCTAGCTACAACGA CTTTCGCT	1806
473	AAGGCUGA G CAUAACUA	105	TAGTTATG GGCTAGCTACAACGA TCAGCCTT	1807
475	GGCUGAGC A UAACUAAA	106	TTTAGTTA GGCTAGCTACAACGA GCTCAGCC	1808
478	UGAGCAUA A CUAAAUCU	107	AGATTTAG GGCTAGCTACAACGA TATGCTCA	1809
483	AUAACUAA A UCUGCCUG	108	CAGGCAGA GGCTAGCTACAACGA TTAGTTAT	1810
487	CUAAAUCU G CCUGUGGA	109	TCCACAGG GGCTAGCTACAACGA AGATTTAG	1811
491	AUCUGCCU G UGGAAGAA	110	TTCTTCCA GGCTAGCTACAACGA AGGCAGAT	1812
500	UGGAAGAA A UGGCAAAC	111	GTTTGCCA GGCTAGCTACAACGA TTCTTCCA	1813
503	AAGAAAUG G CAAACAAU	112	ATTGTTTG GGCTAGCTACAACGA CATTTCTT	1814
507	AAUGGCAA A CAAUUCUG	113	CAGAATTG GGCTAGCTACAACGA TTGCCATT	1815
510	GGCAAACA A UUCUGCAG	114	CTGCAGAA GGCTAGCTACAACGA TGTTTGCC	1816
515	ACAAUUCU G CAGUACUU	115	AAGTACTG GGCTAGCTACAACGA AGAATTGT	1817
518	AUUCUGCA G UACUUUAA	116	TTAAAGTA GGCTAGCTACAACGA TGCAGAAT	1818
520	UCUGCAGU A CUUUAACC	117	GGTTAAAG GGCTAGCTACAACGA ACTGCAGA	1819
526	GUACUUUA A CCUUGAAC	118	GTTCAAGG GGCTAGCTACAACGA TAAAGTAC	1820
533	AACCUUGA A CACAGCUC	119	GAGCTGTG GGCTAGCTACAACGA TCAAGGTT	1821
535	CCUUGAAC A CAGCUCAA	120	TTGAGCTG GGCTAGCTACAACGA GTTCAAGG	1822
538	UGAACACA G CUCAAGCA	121	TGCTTGAG GGCTAGCTACAACGA TGTGTTCA	1823
544	CAGCUCAA G CAAACCAC	122	GTGGTTTG GGCTAGCTACAACGA TTGAGCTG	1824
548	UCAAGCAA A CCACACUG	123	CAGTGTGG GGCTAGCTACAACGA TTGCTTGA	1825
551	AGCAAACC A CACUGGCU	124	AGCCAGTG GGCTAGCTACAACGA GGTTTGCT	1826
553	CAAACCAC A CUGGCUUC	125	GAAGCCAG GGCTAGCTACAACGA GTGGTTTG	1827
557	CCACACUG G CUUCUACA	126	TGTAGAAG GGCTAGCTACAACGA CAGTGTGG	1828
563	UGGCUUCU A CAGCUGCA	127	TGCAGCTG GGCTAGCTACAACGA AGAAGCCA	1829
566	CUUCUACA G CUGCAAAU	128	ATTTGCAG GGCTAGCTACAACGA TGTAGAAG	1830
569	CUACAGCU G CAAAUAUC	129	GATATTTG GGCTAGCTACAACGA AGCTGTAG	1831
573	AGCUGCAA A UAUCUAGC	130	GCTAGATA GGCTAGCTACAACGA TTGCAGCT	1832
575	CUGCAAAU A UCUAGCUG	131	CAGCTAGA GGCTAGCTACAACGA ATTTGCAG	1833
580	AAUAUCUA G CUGUACCU	132	AGGTACAG GGCTAGCTACAACGA TAGATATT	1834
583	AUCUAGCU G UACCUACU	133	AGTAGGTA GGCTAGCTACAACGA AGCTAGAT	1835
585	CUAGCUGU A CCUACUUC	134	GAAGTAGG GGCTAGCTACAACGA ACAGCTAG	1836
589	CUGUACCU A CUUCAAAG	135	CTTTGAAG GGCTAGCTACAACGA AGGTACAG	1837
607	AGAAGGAA A CAGAAUCU	136	AGATTCTG GGCTAGCTACAACGA TTCCTTCT	1838
612	GAAACAGA A UCUGCAAU	137	ATTGCAGA GGCTAGCTACAACGA TCTGTTTC	1839
616	CAGAAUCU G CAAUCUAU	138	ATAGATTG GGCTAGCTACAACGA AGATTCTG	
619	AAUCUGCA A UCUAUAUA	139	TATATAGA GGCTAGCTACAACGA TGCAGATT	1841
623	UGCAAUCU A UAUAUUUA	140	TAAATATA GGCTAGCTACAACGA AGATTGCA	1842
625	CAAUCUAU A UAUUUAUU	141	AATAAATA GGCTAGCTACAACGA ATAGATTG	1843
627	AUCUAUAU A UUUAUUAG	142	CTAATAAA GGCTAGCTACAACGA ATATAGAT	1844
631	AUAUAUUU A UUAGUGAU	143	ATCACTAA GGCTAGCTACAACGA AAATATAT	1845
635	AUUUAUUA G UGAUACAG	144	CTGTATCA GGCTAGCTACAACGA TAATAAAT	1846
638	UAUUAGUG A UACAGGUA	145	TACCTGTA GGCTAGCTACAACGA CACTAATA	1847
640	UUAGUGAU A CAGGUAGA	146	TCTACCTG GGCTAGCTACAACGA ATCACTAA	1848
644	UGAUACAG G UAGACCUU	147	AAGGTCTA GGCTAGCTACAACGA CTGTATCA	1849
648	ACAGGUAG A CCUUUCGU	148	ACGAAAGG GGCTAGCTACAACGA CTACCTGT	1850
655	GACCUUUC G UAGAGAUG	149	CATCTCTA GGCTAGCTACAACGA GAAAGGTC	1851
661	UCGUAGAG A UGUACAGU	150	ACTGTACA GGCTAGCTACAACGA CTCTACGA	1852
663	GUAGAGAU G UACAGUGA	151	TCACTGTA GGCTAGCTACAACGA ATCTCTAC	
665	AGAGAUGU A CAGUGAAA	152	TTTCACTG GGCTAGCTACAACGA ACATCTCT	1853
	AAADUDA A CAGUAAA	1,54	TITCACIG GGCIAGCIACAACGA ACATCTCT	1854

668 GAUGUACA G UGARANCC 153 GORTITCA GECTRAGOTACARGA TOTACOTTO 1855 673 ACRUIGAR A UUNUACAC 154 TOTOGGGA GECTRAGOTACANCAG TITCACTOT 1856 685 CCGARAUU A UACACAGU 155 GEGTATA GECTRAGOTACARCAGA TITCACTOT 1859 687 GARAUUU A UACACAGU 156 CACTGTA GECTRAGOTACARCAG ATTATTCG 1859 689 AAUURUACA CACUGAC 157 GTCATGTG GECTRAGOTACARCAG ATTATTCT 1859 689 AAUURUACA CACUGAC 157 GTCATGTG GECTRAGOTACARCAG ATTATTCT 1859 689 AAUURUACA CACUGAC 159 TOTACTCA GECTRAGOTACARCAG ATTATTCT 1869 689 AAUURUACAC A CUGACUGA 159 TOTACTCA GECTRAGOTACARCAG ATTATTCT 1860 691 UACACAUG A CUGACUGA 159 TOTACTCA GECTRAGOTACARCAG ATTATTCT 1860 694 UACACAUG A CUGACUCA 161 ATTACCAG GECTRAGOTACARCAG ATTATTA 1861 694 UACACAUG A CUGACUCA 161 ATTACCAG GECTRAGOTACACAGA GACTACCAG 708 GGARGGUC G UCCUCAU 161 ATTACCAG GECTRAGOTACACAGA AGACTCC 1863 712 CAGUCCCU G CCGGGUA 164 TARCCCG GECTRAGOTACACAGA AGACTCC 1865 722 CAUUCCCU G CCGGGUA 164 TARCCCG GECTRAGOTACACAGA AGACTCC 1865 732 CAGUUCCU G CCGGGUA 165 TARCCGAG AGCTRAGOTACACAGA ACCCGGC 1867 733 GUCACCUA CUCACUAU 166 AGGTAGC GECTRAGOTACACAGA ACCCGGC 1867 734 CACCGGUUAC G UCACCUA 167 THAGTAG GECTRAGOTACACAGA ACCCGGC 1867 735 GUUACGCC A CCUACAU 168 AGGTAGC GECTRAGOTACACAGA ACCCGGC 1867 736 GUUACGU A CAUCACUU 168 AGGTAGC GECTRAGOTACACAGA ACCCGGC 1867 737 GUCACCUA A CAUCACUU 169 CAGTGATC GECTRAGACAGA ACCCGGC 1867 738 GUUACGU A CAUCACUU 171 AACACAGA GECTRACACAGA ACCGGAC 1870 740 GUCACCUA A CAUCACUU 171 AACACAGA GECTRACACAGA ATTATCAG 1871 741 CACCUGUU A CUUUAAAA 173 TOTTAAGAG GECTRACACAGA ATTATCAG 1871 742 CACCUGAC UUCACAU 174 AACACAGA GECTRACACAGA ATTATCAG 1871 743 CACCUGAC UUCACACU 174 AACACAGA GECTRACACAGA ATTATCAG 1871 744 CACCUGAC UUCACACU 175 AACAGATAA GECTRACACAGA ATTATCAG 1871 745 CACCUGAC UUCACACU 174 AACAGAGA GECTRACACAGA ACCGTAGA 1871 746 ACAUCACU UUCACACU 174 AACAGAGA GECTRACACAGA ACCGTAGA 1871 747 CACCUGAC UUCACACU 174 AACAGAGA GECTRACACAGA ACCGTAGA 1871 748 ACACCCUG UUCACACU 175 AACAGAGA GECTRACACAGA ACCGTAGA 1871 748 ACACCCU A CAUCAGA 175 TARAGAGA GECTRAGAGAACAT 1871 749 CACCUGAC A CAUCUGAC 177 AACAGAGA GECT					
GORGANATU A UACACAUG	668	GAUGUACA G UGAAAUCC	153		1855
685 CCGAAAUU A UACACAUG 156 CATGTOTA GGCTAGCTACAGGA AATTTCG 1858 687 GAAUUAUA CACAUGAC 157 GTCATCTG GGCTAGCTACAGGA ATTATTCG 1859 689 AAUUAUAC A CAUGACUG 158 CGTCATGTG GGCTAGCTACACGA CTATATTT 1860 691 UUAUACACA CA UGACUGA 159 TTCATCA GGCTAGCTACAACGA GTGTATAA 1861 694 UUAUACACA A UGACUGA 159 TTCATCA GGCTAGCTACAACGA GTGTATAA 1861 708 GGAAGGA G CUCGUCAU 161 TATATCA GGCTAGCTACAACGA CATGTGTA 1862 712 GGGAAGCUC G UCAUUCCC 162 GGGAATGA GGCTAGCTACAACGA TCCCTTCC 1863 712 GGGAAGCUC G UCAUUCCC 163 GCAGGGA GGCTAGCTACAACGA CACGTGCT 1865 712 CAUUCCCU G CCGGGUUA 164 TAACCCGG GGCTAGCTACAACGA ACGGACT 1865 712 CAUUCCCU G CCGGGUUA 164 TAACCCGG GGCTAGCTACAACGA AGGGAATG 1866 713 GGCGGGGU A GUCACCU 166 AGGGAGA GGCTAGCTACAACGA AGGGAATG 1867 714 GGCGGGGU A GUCACCU 166 AGGTGAGCTACAACGA AGGGAATG 1867 715 GGUCACCU A CAUCACU 166 AGGTGAGCTACAACGA AGCGAGCT 1869 716 GUCACCUA A CAUCACUG 166 AGGTGAGC GGCTAGCTACAACGA ACCCGG 1868 717 GGCGGGUUA CGUCACU 166 AGGTGAGC GGCTAGCTACAACGA ACCCGG 1869 718 GUUACGUCA CAUCACU 169 CATGTAGC GGCTAGCTACAACGA GACCACCU 1869 718 GUUACGUCA CAUCACUU 170 AACAGTGA GGCTAGCTACAACGA GACCATAC 1871 719 CACCUAACAU C UUACUUUA 170 AACAGTGA GGCTAGCTACAACGA TAGGTGA 1871 719 CACCUAACAU C UUACUUUA 171 AGTAACAG GGCTAGCTACAACGA AGACGTAC 1871 719 UCACUGUU A CUUUACACCU 174 AGTAACAG GGCTAGCTACAACGA AACCGGG 1872 719 CACCUAACAU C UUACACCU 174 AGTAACAG GGCTAGCTACAACGA AACCGGT 1874 719 UCACUGUU A CUUUAAAA 173 TTTTAAG GGCTAGCTACAACGA AACAGTGA 1875 719 UCACUGU A CUUUGACC 175 GTGTCAAG GGCTAGCTACAACGA AACAGTGA 1875 719 UCACUGU A CUUUGACC 175 GTGTCAAG GGCTAGCTACAACGA AACAGTGA 1875 719 UCACUGU A CUUUGACC 175 GTGTCAAG GGCTAGCTACAACGA CAAGTGA 1875 719 UCACUGU A CUUUGACC 177 AACAAGTGA GGCTAGCTACAACGA CAAGTGA 1875 719 UCACUGU A CUUUGACC 177 AACAAGTGA GGCTAGCTACAACGA CAAGTGA 1875 719 UCACUGU A CUUUGACC 177 AACAAGTGA GGCTAGCTACAACGA CAAGTGA 1875 719 UCACUGU A CUUUGAC 177 AACAAGTGA GGCTAGCTACAACGA CAAGTGA 1875 719 UCACUGU A CUUUGAC 177 AACAAGTGA GGCTAGCTACAACGA CAAGTGA 1875 719 UCACUGU A CUUUGAC 177 AACAAGTGA GGCTAGCTACAACGA CAAGTGA 1875 719 UCACUGU A C	673	ACAGUGAA A UCCCCGAA	154	TTCGGGGA GGCTAGCTACAACGA TTCACTGT	1856
687 GARAUUNU A CACAUGAC 157 OTCATETT GETAGCTACAGGA ATRATTTC 1889 689 AUUNUACAC A UNGACUGA 158 CAGTCATG GETAGCTACACAGA GTATAATT 1860 691 UNUACACA CAUGACUG 159 TEAGTCATG GETAGCTACACAGA GTATAATT 1860 694 UACACAUG A CUGACAGA 159 TEAGTCA GEGTAGCTACACAGA GTATTAATT 1860 694 UACACAUG A CUGACAGA 159 TEAGTCA GEGTAGCTACACAGA CATETGTA 1862 708 GGAAGGGA G CUCGUCAU 161 ATGACGAG GETAGCTACAACGA CATETGTA 1862 712 GGGAGCUC G UCAUUCCC 162 GGGAATGA GGCTAGCTACAACGA CATETGTA 1862 713 AGCUCGUC A UUCCCUGC 163 GCAGGGAA GGCTAGCTACACGA GACGACCT 1864 715 AGCUCGUC A UUCCCUGC 163 GCAGGGAA GGCTAGCTACAACGA GACGACCT 1865 722 CAUUCCCU G COGGGUAA 164 TAACCCGG GGCTAGCTACAACGA GACGACCT 1865 723 CCUGCCGG G UUACGUCA 165 TGACGTAA GGCTAGCTACACGA GACGACCT 1867 730 GCCGGGUAC G UCACCUAA 167 TTAGGTGA GGCTAGCTACACGA CAGGGAGG 1866 721 CCUGCCGG G UUACGUCA 167 TGAGGTAA GGCTAGCTACACGA CAGCAGGA 1866 722 CCUGACCUA CUCACCUA 166 AGGTGACG GGCTAGCTACACGA CAGCAGGA 1867 732 CGGGUAC G UCACCUAA 167 TTAGGTGA GGCTAGCTACACGA GACCATAC 1867 733 GUUACGUC A CCUCACUA 167 TAGGTGA GGCTAGCTACACGA GTAACCCG 1869 735 GUUACGUC A CCUCACUA 167 TAGGTGA GGCTAGCTACACGA GTAACCCG 1869 736 GUUACGUC A CCUCACUA 170 AACACTCA GGCTAGCTACACGA GTACCTCA 1870 742 CACCUAAC A UCACUUG 170 AACACTCA GGCTAGCTACACGA GTACCTCA 1870 745 CUAACACC A UCACUUG 171 AGTAACAG GGCTAGCTACAACGA ATGGTACT 1871 746 CUAACACC A UCACUUG 171 AGTAACAG GGCTAGCTACAACGA ATGGTACT 1872 747 UCACCUGU A CUUCACAC 172 ATGGAACA GGCTAGCTACAACGA ATGGACT 1873 748 ACAUCACU G UUACAUA 173 TTTTAMA GGCTAGCTACAACGA ATGGACT 1873 758 AGUUUCCA CUUGAAA 173 TTTTAMA GGCTAGCTACAACGA ATGGACT 1877 768 AAGUUUCC A CUUGACAC 175 GTCTACAA GGCTAGCTACAACGA ATGGACT 1877 778 UCCACUUG A CACUUGA 176 TAGAGGA GGCTAGCTACAACGA ATGGACT 1877 779 UCCACUUG A CACUUGA 176 TAGAGGA GGCTAGCTACAACGA GGAACTTT 1877 771 UCCACUUG A CACUUGAC 175 GTCTACAA GGCTAGCTACAACGA ATGGAT 1877 772 UCCACUUG A CACUUGA 176 TAGAGGA GGCTAGCTACAACGA ATGGAT 1877 773 UCCACUUG A UCUGACAC 175 GTCTACAA GGCTAGCTACAACGA CAAGTTGT 1880 775 CACUUGACA A UCUGACAC 175 GTCTACAA GGCTAGCTACAACGA CAAGTTGT 1880 776 CACUUGA	682	UCCCCGAA A UUAUACAC	155		
ANUMAUNAC A CAUGACUG 158	685	CCGAAAUU A UACACAUG	156	CATGTGTA GGCTAGCTACAACGA AATTTCGG	1858
691	687	GAAAUUAU A CACAUGAC	157		1859
1694 UACACAUG A CUGAAGGA 160 TCCTTCAG GGCTAGCTACAACGA CATGTGTA 1862	689	AAUUAUAC A CAUGACUG	158	CAGTCATG GGCTAGCTACAACGA GTATAATT	1860
708	691	UUAUACAC A UGACUGAA	159	TTCAGTCA GGCTAGCTACAACGA GTGTATAA	1861
T12	694	UACACAUG A CUGAAGGA	160	TCCTTCAG GGCTAGCTACAACGA CATGTGTA	1862
715	708	GGAAGGGA G CUCGUCAU	161	ATGACGAG GGCTAGCTACAACGA TCCCTTCC	1863
722 CAUUCCCU G CCGGGUA 164 TARCCCGG GGTAGCTACACGA AGGGANTG 1866 727 CCUGCGGG UUACGUCA 165 TGACGTAA GGCTAGCTACACGA CCGGCAGG 1667 730 GCCGGGUU A CGUCACCU 165 TGACGTAA GGCTAGCTACACGA CCGGCCAGG 1668 732 CGGGUUAC G UCACCUAA 167 TTAGGTGA GGCTAGCTACAACGA GTAACCGG 1869 735 GUUACGUA A CAUCACGU 168 ATGTTAGG GGCTAGCTACAACGA GACGTAAC 1871 740 GUCACCUA A CAUCACUG 169 CAGTGATG GGCTAGCTACAACGA GACGTAACGA 1871 742 CACCUAAC A UCACUGUU 170 AACACTGA GGCTAGCTACAACGA GATGATTAG 745 CUAACAUC A CUGUUACU 171 AGTAACAG GGCTAGCTACAACGA GATGATTAG 748 ACAUCACU G UUACUUUA 172 TAAAGTAA GGCTAGCTACAACGA AGTGATTAG 751 UCACUUA A CUUUAAAA 173 TTTTAAAG GGCTAGCTACAACGA AGTGATTAG 1875 752 UUAAAAAA G UUUCCAU 174 AGTGGATAC GGCTAGCTACAACGA AACAGTGA 1877 762 UUAAAAAA G UUUGACAC 175 GTTCAAAGG GCTAGCTACAACGA CAACGTGA 1877 1877 773 UCACCUUGA C ACUUUGACA 175 GTTCAAAGG GCTAGCTACAACGA CAAAGTGT 1887	712	GGGAGCUC G UCAUUCCC	162	GGGAATGA GGCTAGCTACAACGA GAGCTCCC	1864
Teach	715	AGCUCGUC A UUCCCUGC	163	GCAGGGAA GGCTAGCTACAACGA GACGAGCT	1865
730 GCCGGGUU A CGUCACCUA 1666 AGGTGACG GGCTAGCTACAACGA AACCCGGC 1868 732 CGGGUUAC G UCACCUAA 167 TTAGGTGA GGCTAGCTACAACGA GTAACCCG 1869 735 GUUACGUC A CCUAACAU 168 ATGTTAGG GGCTAGCTACAACGA GACGTAAC 1870 740 GUCACCUA A CAUCACUG 169 CAGTGATG GGCTAGCTACAACGA TAGGTGAC 1871 742 CACCUAAC A UCACUGUU 170 AACAGTGA GGCTAGCTACAACGA GATGTACA 1870 745 CUAACAUC A CUGUUACU 171 AGCAGTGA GGCTAGCTACAACGA GATGTAGGT 1872 745 CUAACAUC A CUGUUACU 171 AACAGTGA GGCTAGCTACAACGA GATGTAGGT 1872 746 ACAUCACU G UUACUUUA 172 TAAAGTAA GGCTAGCTACAACGA ATGTAGTG 1873 748 ACAUCACU G UUACUUUA 172 TAAAGTAA GGCTAGCTACAACGA AACAGTGAT 1874 751 UCACUGUU A CUUUAAAA 173 TTTTAAAG GGCTAGCTACAACGA AACAGTGAT 1875 762 UUAAAAAA G UUUCACCU 174 AGTGGAAA GGCTAGCTACAACGA AACAGTGA 1875 763 AAGUUUCC A CUUUGACC 175 GTTCAAG GGCTAGCTACAACGA CAAGTGA 1875 764 AAGUUCCA C ACUUUGAC 175 GTTCAAG GGCTAGCTACAACGA CAAGTGA 1876 775 CACCUGAC A CUUUGACC 177 GATCAAAG GGCTAGCTACAACGA CAAGTGA 1877 773 UCCACUUG A CACUUUGA 176 TCAAAGTG GGCTAGCTACAACGA CAAGTGA 1878 788 GAUCCCUG A UGCAUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAGTGA 1879 788 GAUCCCUG A UGCAUAAU 180 ATTATCCG GGCTAGCTACAACGA CAAGGATC 1881 789 GAUGAAAA C GCAUAAUU 180 ATTATCCG GGCTAGCTACAACGA CAAGGACT 1881 789 GAAAACCC A UAAUCUGG 181 AGATTATG GGCTAGCTACAACGA CTACGACTTTCCAT 1882 789 GAAAACCC A UAAUCUGG 182 CCAGATTA GGCTAGCTACAACGA CTATCCATC 1882 809 AAUCUGGG A CAGUAAAU 180 ATTATCCT GGCTAGCTACAACGA CTATCCATC 1884 802 AACGCAUA UCCUGGAC 183 GTCCCAGA GGCTAGCTACAACGA CTATCCATC 1884 802 AACGCAUA UCCUGGAC 183 GTCCCAGA GGCTAGCTACAACGA CTTTTCCA 1886 803 AACGCAUA UCCAUACA 186 TGATGATAG GGCTAGCTACAACGA CTTTTCCA 1886 804 AACGCAUA UCCAUACA 186 TGATGATAG GGCTAGCTACAACGA CCCACATT 1886 805 AACGCAUA A UCCAGAGA 1887 811 UAGAAAGG G CUACACA 187 TGTTTCCA GGCTAGCTACAACGA CCCACATT 1886 826 AGGCUUC A UACAAAU 186 TGATGATAG GGCTAGCTACAACGA CCCACATT 1886 827 GCUUCAUC A UACAAAU 187 TGTTTCTT GGCTAGCTACAACGA CCCACATT 1889 838 UAUCAAAA A UACAAGUA 191 GTTTTCTT GGCTAGCTACAACGA CCTTTCTT 1889 838 UAUCACAAC UACAAAAU 191 GTTTTCTT GGCTAGCTACAACGA TGTACTAT 1892 841 CAAAG	722	CAUUCCCU G CCGGGUUA	164	TAACCCGG GGCTAGCTACAACGA AGGGAATG	1866
732 CGGGUUAC G UCAACAU 167 TTAGGTGA GGCTAGCTACAACAG GTAACCCG 1869 735 GUUACGUA A CCUAACAU 168 ATTTTAGG GGCTAGCTACAACGA GACGTAAC 1870 740 GUCACCUA A CAUCACUG 169 CAGTGATG GGCTAGCTACAACGA TAGGTGAC 1871 742 CACCUAAC A UCACUGUU 170 AACAGTGA GGCTAGCTACAACGA GTTAGGTG 1872 745 CUAACAUC A CUGUUACU 171 AGTAACG GGCTAGCTACAACGA GATGATTA 1873 748 ACAUCACU A CUGUAAAA 173 TTATAAAG GGCTAGCTACAACGA AGTGATTA 1873 761 UCACUGUU A CUUUAAAA 173 TTTATAAG GGCTAGCTACAACGA AGTGATTA 1875 762 UUAAAAAA G UUUCCACU 174 AGTGGAAA GGCTAGCTACAACGA AGAGTGA 1876 768 AAGUUUC A CUUUGACC 175 GTTCAAG GGCTAGCTACAACGA CAAGTGGA 1877 773 UCCACUUG A CACUUGAU 176 ATCAGGGA GGCTAGCTACAACGA CAAGTGGA 1877 781 ACACUUG A UCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAGTGT 1880 788 GAUCCCU A UGAAAAC 179 GTTTTCCA GGCTAGCTACAACGA CTTTCCAT 1880	727	CCUGCCGG G UUACGUCA	165	TGACGTAA GGCTAGCTACAACGA CCGGCAGG	1867
735	730	GCCGGGUU A CGUCACCU	166	AGGTGACG GGCTAGCTACAACGA AACCCGGC	1868
740 GUCACCUA A CAUCACUG 169 CAGTGATG GGCTAGCTACAACGA TAGGTGAC 1871 742 CACCUARC A UCACUGUU 170 AACAGTGA GGCTAGCTACAACGA GTTAGGTG 1872 745 CUAACAUC A CUGUUACU 171 AACAGTGA GGCTAGCTACAACGA GATGTTAG 1873 746 ACAUCACU G UUACUUUA 172 TAAAGTAA GGCTAGCTACAACGA AGGATGT 1874 751 UCACUGUU A CUUUAAAA 173 TTTTAAAG GGCTAGCTACAACGA AACAGTGA 1875 762 UUAAAAAA G UUUCACCU 174 AGTGGAAG AGCTAGCTACAACGA AACAGTGA 1875 768 AAGUUUCC A CUUGACAC 175 GTGTCAAG GGCTAGCTACAACGA GAACATT 1877 773 UCCACUUG A CUUGACC 175 GTGTCAAGTG GGCTAGCTACAACGA GAACTT 1877 775 CACUUGAC A CUUUGAUC 177 GATCAAGTG GGCTAGCTACAACGA CAAAGTT 1879 781 ACACUUUG A UCCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAAGTT 1880 795 GAUGAAAA 179 GTTTCCA GGCTAGCTACAACGA CAAGATT 1881 797 UGGAAAAC G CAAAGUCUG 181 AGTTTGGA GGCTAGCTACAACGA GTTTCCAT	732	CGGGUUAC G UCACCUAA	167	TTAGGTGA GGCTAGCTACAACGA GTAACCCG	1869
742 CACCUAAC A UCACUGUU 170 AACAGTGA GGCTAGCTACAACGA GTTAGGTG 745 CUAACAUC A CUGUUACU 171 AGTAACAG GGCTAGCTACAACGA GATGTTAG 748 ACAUCACU G UUACUUUA 172 TAAAGTAA GGCTAGCTACAACGA AGTGTTAG 751 UCACUGUU A CUUUAAAA 173 TTTTAAAG GGCTAGCTACAACGA AGCAGTGA 762 UUAAAAAA G UUUCCACU 174 AGTGGAAA GGCTAGCTACAACGA GAACGTGA 768 AAGUUUCC A CUUGACC 175 GTGTCAGAG GGCTAGCTACAACGA CAAGTGGA 779 UCCACUUG A CACUUGA 176 CACAGUGA C ACUUGAGA 187 775 CACUUGA C ACUUGAU 177 GATCAAAG GGCTAGCTACAACGA CAAGTGGA 1879 781 ACACUUGA C ACUUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAGTGT 1880 788 GAUCCUG A UGGAAAC 179 GTTTCCA GGCTAGCTACAACGA CAAGTGT 1880 795 GAGAAACG C AUGAAAAC 179 GTTTTCCA GGCTAGCTAACAGA CAGGATT 1881 799 GAAAACGC A UAAUCU 181 AGATTATG GGCTAGCTACAACGA GTTTCCATC 1882 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA CCCAGATT	735	GUUACGUC A CCUAACAU	168	ATGTTAGG GGCTAGCTACAACGA GACGTAAC	1870
745 CUAACAUC A CUGUUACU 171 AGTAACAG GGCTAGCTACAACGA GATGTTAG 1873 748 ACAUCACU G UUACAUUA 172 TAAAGTAA GGCTAGCTACAACGA AGTGATGT 1874 751 UCACUGUU A CUUUAAAA 173 TITTAAAG GGCTAGCTACAACGA AGTGATGA 1875 762 UUAAAAAA G UUUCACU 174 AGTGGAAA GGCTAGCTACAACGA TTTTTTAA 1876 768 AAGUUUC A CUUGACAC 175 GTTCAAG GGCTAGCTACAACGA CAAGTGGA 1877 768 AAGUUUGA C A CUUUGAC 175 GTTCAAAG GGCTAGCTACAACGA CAAGTGGA 1877 773 UCCACUUGA C A CUUUGAUC 177 GATCAAAG GGCTAGCTACAACGA CAAGTGGA 1878 775 CACUUGA A UCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAGTGT 1880 781 ACACUUUGA A UCCUGAU 180 ATTATGCG GGCTAGCTACAACGA CAAGGATT 1880 795 GAUGAAAAC G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA TTTCCATC 1882 797 UGGAAAAC A UCUGGGAC 182 CACCAGATTACAACGA TATGCGTTTCCA 1883 802 AACCACUA A UCUGGAC 182 CCCCAGATT 1886 8	740	GUCACCUA A CAUCACUG	169	CAGTGATG GGCTAGCTACAACGA TAGGTGAC	1871
748 ACAUCACU G UUACUUUA 172 TAAAGTAA GGCTAGCTACAACGA AGTGATGT 1874 751 UCACUGUU A CUUUAAAA 173 TTTTAAAG GGCTAGCTACAACGA AACAGTGA 1875 762 UUAAAAAA G UUUCCACU 174 AGTGGAAA GGCTAGCTACAACGA TTTTTTAA 1876 768 AAGUUUCC A CUUGACAC 175 GTGTGAG GGCTAGCTACAACGA GGAAACTT 1877 773 UCCACUUG A CACUUGA 176 TCAAAAG GGCTAGCTACAACGA CAAGTGGA 1878 775 CACUUGA A CUUUGAUC 177 GATCAAAG GGCTAGCTACAACGA CAAGTGT 1887 781 ACACUUGA A UCCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAGGACT 1880 788 GAUCCUG A UGGAAAC 179 GTTTTCCA GGCTAGCTACAACGA CAAGGATC 1881 795 GAUGAAAA C G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA CTTTCCAT 1882 797 UGGAAAC G AUAAUCU 181 AGATTATG GGCTAGCTACAACGA GTTTCCAT 1883 802 AACCGAUA A UCUGGGAC 183 CCCCAGATTA GGCTAGCTACACGA CCCAGATT 1886 812 CUGGGACA G UAGAAAG 184 TTCTACTG GGCTAGCTACAACGA TGTCCCAG 1887 821 UACAGACAG <t< td=""><td>742</td><td>CACCUAAC A UCACUGUU</td><td>170</td><td>AACAGTGA GGCTAGCTACAACGA GTTAGGTG</td><td>1872</td></t<>	742	CACCUAAC A UCACUGUU	170	AACAGTGA GGCTAGCTACAACGA GTTAGGTG	1872
TITTAAAG GGCTAGCTACAACGA AACAGTGA 1875	745	CUAACAUC A CUGUUACU	171	AGTAACAG GGCTAGCTACAACGA GATGTTAG	1873
1762	748	ACAUCACU G UUACUUUA	172	TAAAGTAA GGCTAGCTACAACGA AGTGATGT	1874
768 AAGUUUCC A CUUGACAC 175 GTGTCAAG GGCTAGCTACAACGA GGAAACTT 1877 773 UCCACUUG A CACUUUGA 176 TCAAAGTG GGCTAGCTACAACGA CAAGTGGA 1878 775 CACUUGA C A CUUUGAUC 177 GATCAAAG GGCTAGCTACAACGA CAAGTGT 1879 781 ACACUUUG A UCCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAAGTGT 1880 788 GAUCCCUG A UGGAAAAC 179 GTTTCCA GGCTAGCTACAACGA CAAGGATT 1881 795 GAUGGAAA A CGCAUAAU 180 ATTATGG GGCTAGCTACAACGA CAGGATTTCCAT 1882 797 UGGAAAAC G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA TTTCCAT 1883 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GCTAGCTACAACGA TTTCCAT 1886 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GCTAGCTACAACGA TTTCCAT 1886 812 CUGGGACA G UAGAAAGA 184 TTCTACTG GGCTAGCTACAACGA TTTCCATA 1886 821 UAGAAAGG 185 CCTTTCTA 3687 822 GCUUCAUC A UACAAAU 186 TGATGAAG GGCTAGCTACAACGA CCTTTCTA 1889 829	751	UCACUGUU A CUUUAAAA	173	TTTTAAAG GGCTAGCTACAACGA AACAGTGA	1875
773 UCCACUUG A CACUUUGA 176 TCAAAGTG GGCTAGCTACAACGA CAAGTGGA 1878 775 CACUUGAC A CUUUGAUC 177 GATCAAAG GGCTAGCTACAACGA GTCAAGTG 1879 781 ACACUUG A UCCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAAGTGT 1880 788 GAUCCUG A UGGAAAAC 179 GTTTTCCA GGCTAGCTACAACGA CAGGGATC 1881 795 GAUGGAAA A CGCAUAAUU 180 ATTATGCG GGCTAGCTACAACGA TTTCCATC 1882 797 UGGAAAACG C AUAAUCUG 181 AGATTATG GGCTAGCTACAACGA TTTTCCATC 1883 799 GAAAACGC A UAAUCUGG 182 CCAGATTA GCTAGCTACAACGA GCTTTTCC 1884 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GCTAGCTACAACGA TATGCGTT 1885 809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA TATGCGTT 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA CCTTCTTCT 1886 821 UAGAAAGG G CUUCAUCA 186 TGATGAGA GGCTAGCTACAACGA CTTCTTCT 1889 829 GCUUCAUCA UAUCAAAU 187 TGATGATGA GGCTAGCTACAACGA GAGCCCT 1889 831 UUCAUCAU UCAAAGGA 1	762	UUAAAAAA G UUUCCACU	174	AGTGGAAA GGCTAGCTACAACGA TTTTTTAA	1876
775 CACUUGAC A CUUUGAU 177 GATCAAAG GGCTAGCTACAACGA GTCAAGTG 1879 781 ACACUUUG A UCCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAAGTGT 1880 788 GAUCCCUG A UGGAAAC 179 GTTTTCCA GGCTAGCTACAACGA CAGGAGTC 1881 795 GAUGAAAA C CACAUAAU 180 ATTATGCG GGCTAGCTACAACGA TTTCCATC 1882 797 UGGAAAAC G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA GTTTCCA 1883 799 GAAACGCA A UAAUCUGG 182 CCAGATTA GGCTACAACGA GTTTCCA 1883 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA TATGCGTT 1886 809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCTTTCTA 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA CCTTTCTA 1886 821 UAGAAAGG 186 TGATGAAG GGCTAGCTACAACGA CCTTTCTA 1886 822 GAGGCUUC A UCAUUCA 186 TGATGAAG GGCTAGCTACAACGA CTTTCTA 1888 826 AGGGCUUC A UCAUAUCA 187 TGATATGA GGCTAGCTACAACGA GATGAAGC 1889 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836	768	AAGUUUCC A CUUGACAC	175	GTGTCAAG GGCTAGCTACAACGA GGAAACTT	1877
781 ACACUUUG A UCCCUGAU 178 ATCAGGGA GGCTAGCTACAACGA CAAAGTGT 1880 788 GAUCCCUG A UGGAAAAC 179 GTTTTCCA GGCTAGCTACAACGA CAGGGATC 1881 795 GAUGGAAA A CGCAUAAU 180 ATTATGCG GGCTAGCTACAACGA TTTCCATC 1882 797 UGGAAAAC G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA GCTTTTC 1883 799 GAAAACGC A UAAUCUGG 182 CCAGATTA GGCTAGCTACAACGA GCGTTTTC 1884 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA CCCAGATT 1885 809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCCAGATT 1886 812 CUGGACA G UAGAAAGG 185 CCTTTCTA GGCTACAACGA TGTCCCAG 1887 821 UAGAAAGG G CUUCAUCA 186 TGATGAAG GGCTAGCTACAACGA TGTCCCAG 1889 822 GCUUCAUC A UCAUAUCA 187 TGATTATGA GGCTAGCTACAACGA GATGATGA 1890 831 UUCAUCAU A UCAAAUG 188 ATTTGATA GGCTAGCTACAACGA ATTGATATG 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATTGGATA 1891 <td>773</td> <td>UCCACUUG A CACUUUGA</td> <td>176</td> <td>TCAAAGTG GGCTAGCTACAACGA CAAGTGGA</td> <td>1878</td>	773	UCCACUUG A CACUUUGA	176	TCAAAGTG GGCTAGCTACAACGA CAAGTGGA	1878
788 GAUCCCUG A UGGAAAAC 179 GTTTTCCA GGCTAGCTACAACGA CAGGGATC 1881 795 GAUGGAAA A CGCAUAAU 180 ATTATGCG GGCTAGCTACAACGA TTTCCATC 1882 797 UGGAAAAC G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA GTTTTCCA 1683 799 GAAAACGC A UAAUCUGG 182 CCAGATTA GGCTAGCTACAACGA GCGTTTTC 1884 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA TATGCGTT 1885 809 AAUCUGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCCAGATT 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA CCCAGATT 1886 812 UAGAAAGG G CUUCAUCA 186 TGATGAAG GGCTAGCTACAACGA CCTTTCTA 1889 821 UAGAAAGG G CUUCAUCA 187 TGATATGA GGCTAGCAACGA GATGAAGC 1889 829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTAGCAACGA GATGAAGC 1890 831 UUCAUCAU A UCCAAUGC 189 GCATTTGA GGCTACAACGA ATTGATATA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATTGTATA 1892	775	CACUUGAC A CUUUGAUC	177	GATCAAAG GGCTAGCTACAACGA GTCAAGTG	1879
795 GAUGGAAA A CGCAUAAU 180 ATTATGCG GGCTAGCTACAACGA TTTCCATC 1882 797 UGGAAAAC G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA GTTTTCCA 1883 799 GAAAACGC A UAAUCUGG 182 CCAGATTA GGCTAGCTACAACGA GCGTTTCC 1884 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA TATGCGT 1885 809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCCAGATT 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA TGTCCAG 1887 821 UAGAAAGG G UUCAUCA 186 TGATTGAA GGCTAGCTACAACGA CCTTTCTA 1888 826 AGGGCUUC A UCAAAAU 187 TGATTGAA GGCTAGCTACAACGA GATGAAGC 1889 831 UUCAUCAU A UCAAAGU 189 GCATTGCA GGCTAGCTACAACGA ATGATATG 1891 836 CAUAUCAA	781	ACACUUUG A UCCCUGAU	178	ATCAGGGA GGCTAGCTACAACGA CAAAGTGT	1880
797 UGGAAAAC G CAUAAUCU 181 AGATTATG GGCTAGCTACAACGA GTTTTCCA 1883 799 GAAAACGC A UAAUCUGG 182 CCAGATTA GGCTAGCTACAACGA GCGTTTTC 1884 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA TATGCGTT 1885 809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCCAGATT 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA TGTCCCAG 1887 821 UAGAAAGG G CUUCAUCA 186 TGATTATGA GGCTAGCTACAACGA CCTTTCTA 1888 826 AGGGCUUC A UCAUAUCA 187 TGATTATGA GGCTAGCTACAACGA GAAGCCCT 1889 829 GCUUCAUC A UACAAAU 188 ATTTGATA GGCTAGCTACAACGA GATGAAGC 1890 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATATA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATTGATAT 1892 838 UAUCAAAUG G CAACGUC 191 GTACGTTG GGCTAGCTACAACGA TGCATTTG 1893 841 CAAAUGCA A CGUACAAGA 192 TTTTTTAG GGCTAGCTACAACGA TGCATTGCA 1895	788	GAUCCCUG A UGGAAAAC	179	GTTTTCCA GGCTAGCTACAACGA CAGGGATC	1881
799 GAAAACGC A UAAUCUGG 182 CCAGATTA GGCTAGCTACAACGA GCGTTTTC 1884 802 AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA TATGCGTT 1885 809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCCAGATT 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA CCCAGATT 1886 821 UAGAAAGG G CUUCAUCA 186 TGATGAAG GGCTAGCTACAACGA CTTCTA 1888 826 AGGGCUUC A UCAUAUCA 187 TGATATGA GGCTAGCTACAACGA GAAGCCCT 1889 829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTACCAACGA GAAGCCCT 1889 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTACCAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GCCTAGCTACAACGA ATTGATAT 1892 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA TGCATTT 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA ACGTTGCA 1895	795	GAUGGAAA A CGCAUAAU	180	ATTATGCG GGCTAGCTACAACGA TTTCCATC	1882
AACGCAUA A UCUGGGAC 183 GTCCCAGA GGCTAGCTACAACGA TATGCGTT 1885 809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCCAGATT 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA CCCAGATT 1886 821 UAGAAAGG G CUUCAUCA 186 TGATGAAG GGCTAGCTACAACGA CCTTTCTA 1888 826 AGGGCUUC A UCAUAUCA 187 TGATATGA GGCTAGCTACAACGA CCTTTCTA 1889 829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTAGCTACAACGA GATGAAGC 1890 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATGATGAA 1891 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA ATTTGATA 1893 842 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA TTCATTG 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA ATGTTGCA 1896 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ATCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA TCTTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 869 UCUGACCU G UGAAGCAA 198 TTCCTCA GGCTAGCTACAACGA CCTATTTC 1898 869 UCUGACCU G UGAAGCAA 198 TTCCTCA GGCTAGCTACAACGA CAGAAGCC 1899 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TCCACGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TCCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TCCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TCCACGT 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TCTTCAC 1902 881 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TCTTTGCT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TCTTTGCT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA CCATTGCT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA TCTCTTGCT 1904	797	UGGAAAAC G CAUAAUCU	181	AGATTATG GGCTAGCTACAACGA GTTTTCCA	1883
809 AAUCUGGG A CAGUAGAA 184 TTCTACTG GGCTAGCTACAACGA CCCAGATT 1886 812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA TGTCCCAG 1887 821 UAGAAAGG G CUUCAUCA 186 TGATGAAG GGCTAGCTACAACGA CCTTTCTA 1888 826 AGGGCUUC A UCAUAUCA 187 TGATATGA GGCTAGCTACAACGA CCTTTCTA 1889 829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTAGCTACAACGA GAAGCCCT 1889 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATGATGAA 1891 837 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATAT 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA ATTTGATA 1893 842 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA TGCATTTG 1894 843 AAUGCAAC G UACAAAGA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCAT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCAT 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA ACGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TCCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TCCACAGG 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGCTTCAC 1902 881 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGCTTCAC 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1903	799	GAAAACGC A UAAUCUGG	182	CCAGATTA GGCTAGCTACAACGA GCGTTTTC	1884
812 CUGGGACA G UAGAAAGG 185 CCTTTCTA GGCTAGCTACAACGA TGTCCCAG 1887 821 UAGAAAGG G CUUCAUCA 186 TGATGAAG GGCTAGCTACAACGA CCTTTCTA 1888 826 AGGGCUUC A UCAUAUCA 187 TGATATGA GGCTAGCTACAACGA GAAGCCCT 1889 829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTAGCTACAACGA GAAGCCCT 1889 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATGATATG 1892 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA ATTTGATA 1893 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCAT 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGCTTCAC 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGCTTTCT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA TGACTGTT 1904	802	AACGCAUA A UCUGGGAC	183	GTCCCAGA GGCTAGCTACAACGA TATGCGTT	1885
821 UAGAAAGG G CUUCAUCA 186 TGATGAAG GGCTAGCTACAACGA CCTTTCTA 1888 826 AGGGCUUC A UCAUAUCA 187 TGATATGA GGCTAGCTACAACGA GAAGCCCT 1889 829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTAGCTACAACGA GATGAAGC 1890 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATGATGAA 1892 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTGATATG 1892 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA ATTGATA 1893 842 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TCTTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA C CAACAGUC 199 GACTGTT GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTCACT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA TGACTGTT 1904	809	AAUCUGGG A CAGUAGAA	184	TTCTACTG GGCTAGCTACAACGA CCCAGATT	1886
826 AGGGCUUC A UCAUAUCA 187 TGATATGA GGCTAGCTACAACGA GAAGCCCT 1889 829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTAGCTACAACGA GATGAAGC 1890 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATGATATG 1892 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA TGCATTTG 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA CCTTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGCTTCAC 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	812	CUGGGACA G UAGAAAGG	185	CCTTTCTA GGCTAGCTACAACGA TGTCCCAG	1887
829 GCUUCAUC A UAUCAAAU 188 ATTTGATA GGCTAGCTACAACGA GATGAAGC 1890 831 UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA ATGATATG 1892 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA TGCATTTG 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA ACGTTGCA 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGCTTCAC 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA TGACTGTT 1904	821	UAGAAAGG G CUUCAUCA	186	TGATGAAG GGCTAGCTACAACGA CCTTTCTA	1888
UUCAUCAU A UCAAAUGC 189 GCATTTGA GGCTAGCTACAACGA ATGATGAA 1891 836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA TTGATATG 1892 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA TGCATTTG 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCAT 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CCTATTTC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA CAGAAGCC 1899 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TCCACAGG 1900 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTCACC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	826	AGGGCUUC A UCAUAUCA	187	TGATATGA GGCTAGCTACAACGA GAAGCCCT	1889
836 CAUAUCAA A UGCAACGU 190 ACGTTGCA GGCTAGCTACAACGA TTGATATG 1892 838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA TGCATTG 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA TGACTGTT 1904	829	GCUUCAUC A UAUCAAAU	188	ATTTGATA GGCTAGCTACAACGA GATGAAGC	1890
838 UAUCAAAU G CAACGUAC 191 GTACGTTG GGCTAGCTACAACGA ATTTGATA 1893 841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA TGCATTTG 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	831	UUCAUCAU A UCAAAUGC	189	GCATTTGA GGCTAGCTACAACGA ATGATGAA	1891
841 CAAAUGCA A CGUACAAA 192 TTTGTACG GGCTAGCTACAACGA TGCATTTG 1894 843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	836	CAUAUCAA A UGCAACGU	190	ACGTTGCA GGCTAGCTACAACGA TTGATATG	1892
843 AAUGCAAC G UACAAAGA 193 TCTTTGTA GGCTAGCTACAACGA GTTGCATT 1895 845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	838	UAUCAAAU G CAACGUAC	191	GTACGTTG GGCTAGCTACAACGA ATTTGATA	1893
845 UGCAACGU A CAAAGAAA 194 TTTCTTTG GGCTAGCTACAACGA ACGTTGCA 1896 853 ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	841	CAAAUGCA A CGUACAAA	192	TTTGTACG GGCTAGCTACAACGA TGCATTTG	1894
ACAAAGAA A UAGGGCUU 195 AAGCCCTA GGCTAGCTACAACGA TTCTTTGT 1897 858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	843	AAUGCAAC G UACAAAGA	193	TCTTTGTA GGCTAGCTACAACGA GTTGCATT	1895
858 GAAAUAGG G CUUCUGAC 196 GTCAGAAG GGCTAGCTACAACGA CCTATTTC 1898 865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	845	UGCAACGU A CAAAGAAA	194	TTTCTTTG GGCTAGCTACAACGA ACGTTGCA	1896
865 GGCUUCUG A CCUGUGAA 197 TTCACAGG GGCTAGCTACAACGA CAGAAGCC 1899 869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	853	ACAAAGAA A UAGGGCUU	195	AAGCCCTA GGCTAGCTACAACGA TTCTTTGT	1897
869 UCUGACCU G UGAAGCAA 198 TTGCTTCA GGCTAGCTACAACGA AGGTCAGA 1900 874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	858	GAAAUAGG G CUUCUGAC	196	GTCAGAAG GGCTAGCTACAACGA CCTATTTC	1898
874 CCUGUGAA G CAACAGUC 199 GACTGTTG GGCTAGCTACAACGA TTCACAGG 1901 877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	865	GGCUUCUG A CCUGUGAA	197	TTCACAGG GGCTAGCTACAACGA CAGAAGCC	1899
877 GUGAAGCA A CAGUCAAU 200 ATTGACTG GGCTAGCTACAACGA TGCTTCAC 1902 880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	869	UCUGACCU G UGAAGCAA	198	TTGCTTCA GGCTAGCTACAACGA AGGTCAGA	1900
880 AAGCAACA G UCAAUGGG 201 CCCATTGA GGCTAGCTACAACGA TGTTGCTT 1903 884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	874	CCUGUGAA G CAACAGUC	199	GACTGTTG GGCTAGCTACAACGA TTCACAGG	1901
884 AACAGUCA A UGGGCAUU 202 AATGCCCA GGCTAGCTACAACGA TGACTGTT 1904 888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	877	GUGAAGCA A CAGUCAAU	200	ATTGACTG GGCTAGCTACAACGA TGCTTCAC	1902
888 GUCAAUGG G CAUUUGUA 203 TACAAATG GGCTAGCTACAACGA CCATTGAC 1905	880	AAGCAACA G UCAAUGGG	201	CCCATTGA GGCTAGCTACAACGA TGTTGCTT	1903
	884	AACAGUCA A UGGGCAUU	202	AATGCCCA GGCTAGCTACAACGA TGACTGTT	1904
890 CAAUGGGC A UUUGUAUA 204 TATACAAA GGCTAGCTACAACGA GCCCATTG 1906	888	GUCAAUGG G CAUUUGUA	203	TACAAATG GGCTAGCTACAACGA CCATTGAC	1905
	890	CAAUGGGC A UUUGUAUA	204	TATACAAA GGCTAGCTACAACGA GCCCATTG	1906

				
894	GGGCAUUU G UAUAAGAC	205	GTCTTATA GGCTAGCTACAACGA AAATGCCC	1907
896	GCAUUUGU A UAAGACAA	206	TTGTCTTA GGCTAGCTACAACGA ACAAATGC	1908
901	UGUAUAAG A CAAACUAU	207	ATAGTTTG GGCTAGCTACAACGA CTTATACA	1909
905	UAAGACAA A CUAUCUCA	208	TGAGATAG GGCTAGCTACAACGA TTGTCTTA	1910
908	GACAAACU A UCUCACAC	209	GTGTGAGA GGCTAGCTACAACGA AGTTTGTC	1911
913	ACUAUCUC A CACAUCGA	210	TCGATGTG GGCTAGCTACAACGA GAGATAGT	1912
915	UAUCUCAC A CAUCGACA	211	TGTCGATG GGCTAGCTACAACGA GTGAGATA	1913
917	UCUCACAC A UCGACAAA	212	TTTGTCGA GGCTAGCTACAACGA GTGTGAGA	1914
921	ACACAUCG A CAAACCAA	213	TTGGTTTG GGCTAGCTACAACGA CGATGTGT	1915
925	AUCGACAA A CCAAUACA	214	TGTATTGG GGCTAGCTACAACGA TTGTCGAT	1916
929	ACAAACCA A UACAAUCA	215	TGATTGTA GGCTAGCTACAACGA TGGTTTGT	1917
931	AAACCAAU A CAAUCAUA	216	TATGATTG GGCTAGCTACAACGA ATTGGTTT	1918
934	CCAAUACA A UCAUAGAU	217	ATCTATGA GGCTAGCTACAACGA TGTATTGG	1919
937	AUACAAUC A UAGAUGUC	218	GACATCTA GGCTAGCTACAACGA GATTGTAT	1920
941	AAUCAUAG A UGUCCAAA	219	TTTGGACA GGCTAGCTACAACGA CTATGATT	1921
943	UCAUAGAU G UCCAAAUA	220	TATTTGGA GGCTAGCTACAACGA ATCTATGA	1922
949	AUGUCCAA A UAAGCACA	221	TGTGCTTA GGCTAGCTACAACGA TTGGACAT	1923
953	CCAAAUAA G CACACCAC	222	GTGGTGTG GGCTAGCTACAACGA TTATTTGG	1924
955	AAAUAAGC A CACCACGC	223	GCGTGGTG GGCTAGCTACAACGA GCTTATTT	1925
957	AUAAGCAC A CCACGCCC	224	GGGCGTGG GGCTAGCTACAACGA GTGCTTAT	1926
960	AGCACACC A CGCCCAGU	225	ACTGGGCG GGCTAGCTACAACGA GGTGTGCT	1927
962	CACACCAC G CCCAGUCA	226	TGACTGGG GGCTAGCTACAACGA GTGGTGTG	1928
967	CACGCCCA G UCAAAUUA	227	TAATTTGA GGCTAGCTACAACGA TGGGCGTG	1929
972	CCAGUCAA A UUACUUAG	228	CTAAGTAA GGCTAGCTACAACGA TTGACTGG	1930
975	GUCAAAUU A CUUAGAGG	229	CCTCTAAG GGCTAGCTACAACGA AATTTGAC	1931
983	ACUUAGAG G CCAUACUC	230	GAGTATGG GGCTAGCTACAACGA CTCTAAGT	1932
986	UAGAGGCC A UACUCUUG	231	CAAGAGTA GGCTAGCTACAACGA GGCCTCTA	1933
988	GAGGCCAU A CUCUUGUC	232	GACAAGAG GGCTAGCTACAACGA ATGGCCTC	1934
994	AUACUCUU G UCCUCAAU	233	ATTGAGGA GGCTAGCTACAACGA AAGAGTAT	1935
1001	UGUCCUCA A UUGUACUG	234	CAGTACAA GGCTAGCTACAACGA TGAGGACA	1936
1004	CCUCAAUU G UACUGCUA	235	TAGCAGTA GGCTAGCTACAACGA AATTGAGG	1937
1006	UCAAUUGU A CUGCUACC	236	GGTAGCAG GGCTAGCTACAACGA ACAATTGA	1938
1009	AUUGUACU G CUACCACU	237	AGTGGTAG GGCTAGCTACAACGA AGTACAAT	1939
1012	GUACUGCU A CCACUCCC	238	GGGAGTGG GGCTAGCTACAACGA AGCAGTAC	1940
1015	CUGCUACC A CUCCCUUG	239	CAAGGGAG GGCTAGCTACAACGA GGTAGCAG	1941
1025	UCCCUUGA A CACGAGAG	240	CTCTCGTG GGCTAGCTACAACGA TCAAGGGA	1942
1027	CCUUGAAC A CGAGAGUU	241	AACTCTCG GGCTAGCTACAACGA GTTCAAGG	1943
1033	ACACGAGA G UUCAAAUG	242	CATTTGAA GGCTAGCTACAACGA TCTCGTGT	
1039	GAGUUCAA A UGACCUGG	243	CCAGGTCA GGCTAGCTACAACGA TTGAACTC	
1042	UUCAAAUG A CCUGGAGU	244	ACTCCAGG GGCTAGCTACAACGA CATTTGAA	
1049	GACCUGGA G UUACCCUG	245	CAGGGTAA GGCTAGCTACAACGA TCCAGGTC	
1052	CUGGAGUU A CCCUGAUG	246	CATCAGGG GGCTAGCTACAACGA AACTCCAG	
1058	UUACCCUG A UGAAAAA	247	TTTTTCA GGCTAGCTACAACGA CAGGGTAA	1949
1067	UGAAAAA A UAAGAGAG	248	CTCTCTTA GGCTAGCTACAACGA TTTTTTCA	1950
1075	AUAAGAGA G CUUCCGUA	249	TACGGAAG GGCTAGCTACAACGA TCTCTTAT	1951
1081	GAGCUUCC G UAAGGCGA	250	TCGCCTTA GGCTAGCTACAACGA GGAAGCTC	1952
1086	UCCGUAAG G CGACGAAU	251	ATTCGTCG GGCTAGCTACAACGA CTTACGGA	1953
1089	GUAAGGCG A CGAAUUGA	252	TCAATTCG GGCTAGCTACAACGA CGCCTTAC	1954
1093	GGCGACGA A UUGACCAA	253	TTGGTCAA GGCTAGCTACAACGA TCGTCGCC	1955
1097	ACGAAUUG A CCAAAGCA	254	TGCTTTGG GGCTAGCTACAACGA CAATTCGT	1956
1103	UGACCAAA G CAAUUCCC	255	GGGAATTG GGCTAGCTACAACGA TTTGGTCA	1957
1106	CCAAAGCA A UUCCCAUG	256	CATGGGAA GGCTAGCTACAACGA TGCTTTGG	1958
		230	CHILOGONA GOCINGCIACAACOA IGCIIIGG	1200

1112	CAAUUCCC A UGCCAACA	_257	TGTTGGCA GGCTACCAACGA GGGAATTG	1959
1114	AUUCCCAU G CCAACAUA	258	TATGTTGG GGCTAGCTACAACGA ATGGGAAT	1960
1118	CCAUGCCA A CAUAUUCU	259	AGAATATG GGCTAGCTACAACGA TGGCATGG	
1120	AUGCCAAC A UAUUCUAC	260	GTAGAATA GGCTAGCTACAACGA GTTGGCAT	1962
1122	GCCAACAU A UUCUACAG	261	CTGTAGAA GGCTAGCTACAACGA ATGTTGGC	
1127	CAUAUUCU A CAGUGUUC	262	GAACACTG GGCTAGCTACAACGA AGAATATG	
1130	AUUCUACA G UGUUCUUA	263	TAAGAACA GGCTAGCTACAACGA TGTAGAAT	1965
1132	UCUACAGU G UUCUUACU	264	AGTAAGAA GGCTAGCTACAACGA ACTGTAGA	1966
1138	GUGUUCUU A CUAUUGAC	265	GTCAATAG GGCTAGCTACAACGA AAGAACAC	1967
1141	UUCUUACU A UUGACAAA	_266	TTTGTCAA GGCTAGCTACAACGA AGTAAGAA	1968
1145	UACUAUUG A CAAAAUGC	267	GCATTTTG GGCTAGCTACAACGA CAATAGTA	1969
1150	UUGACAAA A UGCAGAAC	268	GTTCTGCA GGCTAGCTACAACGA TTTGTCAA	1970
1152	GACAAAAU G CAGAACAA	269	TTGTTCTG GGCTAGCTACAACGA ATTTTGTC	1971
1157	AAUGCAGA A CAAAGACA	270	TGTCTTTG GGCTAGCTACAACGA TCTGCATT	1972
1163	GAACAAAG A CAAAGGAC		GTCCTTTG GGCTAGCTACAACGA CTTTGTTC	1973
1170	GACAAAGG A CUUUAUAC	272	GTATAAAG GGCTAGCTACAACGA CCTTTGTC	1974
1175	AGGACUUU A UACUUGUC	273	GACAAGTA GGCTAGCTACAACGA AAAGTCCT	1975
1177	GACUUUAU A CUUGUCGU	274	ACGACAAG GGCTAGCTACAACGA ATAAAGTC	1976
1181	UUAUACUU G UCGUGUAA	275	TTACACGA GGCTAGCTACAACGA AAGTATAA	1977
1184	UACUUGUC G UGUAAGGA	276	TCCTTACA GGCTAGCTACAACGA GACAAGTA	1978
1186	CUUGUCGU G UAAGGAGU	277	ACTCCTTA GGCTAGCTACAACGA ACGACAAG	1979
1193	UGUAAGGA G UGGACCAU	278	ATGGTCCA GGCTAGCTACAACGA TCCTTACA	1980
1197	AGGAGUGG A CCAUCAUU	279	AATGATGG GGCTAGCTACAACGA CCACTCCT	1981
1200	AGUGGACC A UCAUUCAA	280	TTGAATGA GGCTAGCTACAACGA GGTCCACT	1982
1203	GGACCAUC A UUCAAAUC	281	GATTIGAA GGCTAGCTACAACGA GATGGTCC	1983
1209	UCAUUCAA A UCUGUUAA	282	TTAACAGA GGCTAGCTACAACGA TTGAATGA	1984
1213	UCAAAUCU G UUAACACC	283	GGTGTTAA GGCTAGCTACAACGA AGATTTGA	1985
1217	AUCUGUUA A CACCUCAG	284	CTGAGGTG GGCTAGCTACAACGA TAACAGAT	1986
1219	CUGUUAAC A CCUCAGUG	285	CACTGAGG GGCTAGCTACAACGA GTTAACAG	1987
1225	ACACCUCA G UGCAUAUA	286	TATATGCA GGCTAGCTACAACGA TGAGGTGT	1988
1227	ACCUCAGU G CAUAUAUA	287	TATATATG GGCTAGCTACAACGA ACTGAGGT	1989
1229	CUCAGUGC A UAUAUAUG	288	CATATATA GGCTAGCTACAACGA GCACTGAG	1990
1231	CAGUGCAU A UAUAUGAU	289	ATCATATA GGCTAGCTACAACGA ATGCACTG	1991
1233	GUGCAUAU A UAUGAUAA	290	TTATCATA GGCTAGCTACAACGA ATATGCAC	1992
1235	GCAUAUAU A UGAUAAAG	291	CTTTATCA GGCTAGCTACAACGA ATATATGC	1993
1238	UAUAUAUG A UAAAGCAU	292	ATGCTTTA GGCTAGCTACAACGA CATATATA	1994
1243	AUGAUAAA G CAUUCAUC	293	GATGAATG GGCTAGCTACAACGA TTTATCAT	1995
1245	GAUAAAGC A UUCAUCAC	294	GTGATGAA GGCTAGCTACAACGA GCTTTATC	1996
1249	AAGCAUUC A UCACUGUG	295	CACAGTGA GGCTAGCTACAACGA GAATGCTT	1997
1252	CAUUCAUC A CUGUGAAA	296	TTTCACAG GGCTAGCTACAACGA GATGAATG	1998
1255	UCAUCACU G UGAAACAU	297	ATGTTTCA GGCTAGCTACAACGA AGTGATGA	1999
1260	ACUGUGAA A CAUCGAAA	298	TTTCGATG GGCTAGCTACAACGA TTCACAGT	2000
1262	UGUGAAAC A UCGAAAAC	299	GTTTTCGA GGCTAGCTACAACGA GTTTCACA	2001
1269	CAUCGAAA A CAGCAGGU	300	ACCTGCTG GGCTAGCTACAACGA TTTCGATG	2002
1272	CGAAAACA G CAGGUGCU	301	AGCACCTG GGCTAGCTACAACGA TGTTTTCG	2003
1276	AACAGCAG G UGCUUGAA	302	TTCAAGCA GGCTAGCTACAACGA CTGCTGTT	2004
1278	CAGCAGGU G CUUGAAAC	303	GTTTCAAG GGCTAGCTACAACGA ACCTGCTG	2005
1285	UGCUUGAA A CCGUAGCU	304	AGCTACGG GGCTAGCTACAACGA TTCAAGCA	2006
1288	UUGAAACC G UAGCUGGC	305	GCCAGCTA GGCTAGCTACAACGA GGTTTCAA	2007
1291	AAACCGUA G CUGGCAAG	306	CTTGCCAG GGCTAGCTACAACGA TACGGTTT	2008
1295	CGUAGCUG G CAAGCGGU	307	ACCGCTTG GGCTAGCTACAACGA CAGCTACG	2009
1299	GCUGGCAA G CGGUCUUA	308	TAAGACCG GGCTAGCTACAACGA TTGCCAGC	2010

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1307 GGCAAGCG G UCUUACCO 309 CGSTAAGA GGCTAGCGCA COCTICAC 2011 1311 UCUUACCG G CUCUCUAU 311 ATAGAGAG GGCTAGCGT GCATAGAA AGAGCACC 2013 1318 GGCUCUCU A UGAAAGGG G CACCTTCCA GGCTAGCTACAACGA AGAGAGCC 2014					
1311	1302	GGCAAGCG G UCUUACCG	309	CGGTAAGA GGCTAGCTACAACGA CGCTTGCC	2011
1318	1307	GCGGUCUU A CCGGCUCU	310	AGAGCCGG GGCTAGCTACAACGA AAGACCGC	2012
1324	1311	UCUUACCG G CUCUCUAU	311	ATAGAGAG GGCTAGCTACAACGA CGGTAAGA	2013
1330	1318	GGCUCUCU A UGAAAGUG	312	CACTTTCA GGCTAGCTACAACGA AGAGAGCC	2014
1332 GUGAAGGC A UUUCCCUC 315 GAGGGAAA GGCTAGCTACAACGA GCCTTCXC 2017 1341 UUUCCCUC G CCGGAAGU 316 ACTTCCGG GGCTAGCTACAACGA GAGGGAAA 2018 1348 CGCGGGAA UUUGAUGUG 319 TCTATACA GGCTAGCTACAACGA ATCCCGG 2019 1351 CGGAAGUU G UAUGGUUA 318 TAACCATA GGCTAGCTACAACGA ATCCCGG 2019 1355 GAUGUUGU G UUAAAAGA 319 TTTAACCA GGCTAGCTACAACGA ACACTTC 2021 1356 GUUGUUGU G UUAAAAGA 320 TCTTTTAA GGCTAGCTACAACGA CATACAAC 2022 1364 GUUAAAGA 320 TCTTTTAA GGCTAGCTACAACGA CATACAAC 2022 1364 GUUAAAGA 320 TCTTTTAA GGCTAGCTACAACGA CATACAAC 2022 1369 AAAAGUG G UUACCUGC 322 GCAGGTAA GGCTAGCTACAACGA CATACTAC 2023 1377 GAUGGGUU A CCUGCGAC 322 GCAGGTAA GGCTAGCTACAACGA CATACTAC 2025 1378 UACCUGC GAGCUGAG 324 CTCAGTCG GGCTAGCTACAACGA ACCCATC 2025 1378 UACCUGCG ACUGAGAA 325 TTTCTCAG GGCTAGCTACAACGA ACCCATC 2026 1398 AAAAGUC G CUCAGGAA 324 CTCAGTCG GGCTAGCTACAACGA ACCCATC 2028 1399 AGAAAUC G CUCAGCAA 327 ATAGGGAG GGCTAGCTACAACGA ACCCATC 2028 1399 AGAAAUC G CUCAGUAU 327 ATAGGGAG GGCTAGCTACAACGA ACCCATC 2028 1399 AGAAAUC G CUCAGUAU 327 ATAGGGAG GGCTAGCTACAACGA ACCAATC 2028 1399 AGAAAUC G CUCAGUAU 327 ATAGGGAG GGCTAGCTACAACGA ACCAATTC 2028 1402 GUUAUUGA 328 TCAAATAG GGCTAGCTACAACGA ACCAATTC 2028 1402 GUUAUUGA 328 TCAAATAG GGCTAGCTACAACGA ACCAATTC 2028 1405 UUUGACUC UUUGACUC 329 GAGTCAAA GGCTAGCTACAACGA ACCAATTC 2021 1402 GUUAUUGA 328 TCAAATAG GGCTAGCTACAACGA ACCAAGAT 2031 1402 GUUAUUGA 330 GCCAGGAG GGCTAGCTACAACGA ACCAAGAT 2031 1402 GUUAUUGA 331 AGTAGCA GGCTAGCTACAACGA ACCAAGAT 2031 1405 UUUGACUC UUUGACUC 332 ACGAGTAG GGCTAGCTACAACGA ACCAAGAT 2031 1405 UUUGACUC UUUGACUC 332 ACCAGATAG GGCTAGCTACAACGA ACCAAGAT 2031 1406 UUUGACUC UUUGACUC 332 ACCAGATAG GGCTAGCTACAACGA ACCAGATC 2031 1409 GACUCGUU UUUAAUAUA 333 TTACGTAG GGCTAGCTACAACGA ACCAGATC 2031 1409 ACCAGGGA UUAACUAU	1324	CUAUGAAA G UGAAGGCA	313	TGCCTTCA GGCTAGCTACAACGA TTTCATAG	2015
1341	1330	AAGUGAAG G CAUUUCCC	314	GGGAAATG GGCTAGCTACAACGA CTTCACTT	2016
1348	1332	GUGAAGGC A UUUCCCUC	315	GAGGGAAA GGCTAGCTACAACGA GCCTTCAC	2017
1351	1341	UUUCCCUC G CCGGAAGU	316	ACTTCCGG GGCTAGCTACAACGA GAGGGAAA	2018
1353	1348	CGCCGGAA G UUGUAUGG	317	CCATACAA GGCTAGCTACAACGA TTCCGGCG	2019
1356	1351	CGGAAGUU G UAUGGUUA	318	TAACCATA GGCTAGCTACAACGA AACTTCCG	2020
1364 GUUARARG A UGGGUUAC 321 GTARCCCA GGCTAGCTACAACGA CTTTTAC 2023 1368 AAAGAUGG G UUACCUGC 322 GCAGGTAA GGCTAGCTACAACGA CACTCTT 2024 1371 GAUGGGUU A CCUGCGAC 323 GTCGCAGG GGCTAGCTACAACGA AACCCATCTT 2025 1375 GGUUACCU G CGACUGAG 324 CTCATCCG GGCTAGCTACAACGA AGCTAACC 2025 1378 UACCUGCG A CUGAGAAA 325 TTTCTCAG GGCTAGCTACAACGA AGCTAACC 2026 1378 UACCUGCG A CUGAGAAA 325 TTTCTCAG GGCTAGCTACAACGA CGCAGGTA 2027 1386 ACUGAGAA A UCUGCUCG 326 CGAGCAGG GGCTAGCTACAACGA CGCAGGTA 2027 1390 AGAAAUCU G CUCGCUAU 327 ATAGCGAG GGCTAGCTACAACGA AGCATTCT 2029 1394 AUCUGCUC G CUAUUUGA 328 TCAAATAG GGCTAGCTACAACGA AGCATTCT 2029 1397 UGCUCGCU A UUUGACUC 329 GAGTCAAA GGCTAGCTACAACGA AGCAGAC 2031 1402 GCUAUUUGA 2028 2030 2026 GCACCAGA GGCTAGCTACAACGA AGCAGAC 2031 1405 UUUGACUC G UGGUUACU 331 AGTAGCCA GGCTAGCTACAACGA CAAATAC 2033 1409 GACUCGUG G CUAUUUGA 333 ACCAGTAG GGCTAGCTACAACGA AGCAGAC 2034 1412 UUCUGUGCU C UUCAUUAA 333 TTAACGAG GGCTAGCTACAACGA AGCAGACT 2034 1412 UUCUGUGCU C UUAAUUAU 334 ATAATTAA GGCTAGCTACAACGA AGCAGAC 2035 1420 ACCUGUUAA UUAUCAAG 335 CTTGATAA GGCTAGCTACAACGA AGCAGAC 2036 1420 ACUCGUUA A UUAUCAAG 336 GTCCTTGA AGCTACAACGA ATTTAACC 2038 1430 UAUCAAGG A CGUAACUG 337 CASTTACG GGCTAGCTACAACGA ATTTAACC 2038 1432 UCAAGGAC UAACUGA 338 TTCAGTTA GGCTAGCTACAACGA ATTTAACC 2038 1432 UCAAGGAC UAACUGA 336 GTCCTTGA GGCTAGCTACAACGA ATTTAACC 2038 1435 AGGACGUA A UUAUCAAA 338 TTCAGTTA GGCTAGCTACAACGA ATTTAACC 2038 1435 AGGACGUA A UUAUCAAA 348 TTCAGTTA GGCTAGCTACAACGA ATTTAACC 2040 1435 AGGACGUA A UUAUCAAA 349 TTCAGTTA GGCTAGCTACAACGA ATCTTCT 2041 1454 UGCAGGGA A UUAUCAAA 341 ATTCCCTG GGCTAGCTACAACGA ATCTTCT 2041 1454 UGCAGGGA A UUAUCAAA 342 TTGTATAA GGCTAGCTACAACGA ATCTCTT 2043 1454 AGGACGUA A UUAUCAAA 342 TTGTATAA GGCTAGCTACAACGA ATCTTCT 2045 1454 AGGACGUA A UUAU	1353	GAAGUUGU A UGGUUAAA	319	TTTAACCA GGCTAGCTACAACGA ACAACTTC	2021
1368	1356	GUUGUAUG G UUAAAAGA	320	TCTTTTAA GGCTAGCTACAACGA CATACAAC	2022
1371	1364	GUUAAAAG A UGGGUUAC	321	GTAACCCA GGCTAGCTACAACGA CTTTTAAC	2023
1375	1368	AAAGAUGG G UUACCUGC	322	GCAGGTAA GGCTAGCTACAACGA CCATCTTT	2024
1378	1371	GAUGGGUU A CCUGCGAC	323	GTCGCAGG GGCTAGCTACAACGA AACCCATC	2025
1386 ACUGAGAA A UCUGCUCG 326 CGAGCAGA GGCTAGCTACAACGA TTCTCAGT 2028 1390 AGAAAUCU G CUCGCUAU 327 ATAGCGAG GGCTAGCTACAACGA AGATTTCT 2029 1394 AUCUGCUC G CUAUUUGA 328 TCAAATAG GGCTAGCTACAACGA AGATTTCT 2030 1397 UGCUCGGU A UUUGACUC 329 GAGTCAAA GGCTAGCTACAACGA AGCGAGCA 2031 1402 GCUAUUUG A CUCGUGGC 330 GCCACCAGA GGCTAGCTACAACGA AGCGAGCA 2031 1406 UUUGACUC G UGGCUACU 331 AGTAGCCA GGCTAGCTACAACGA CAAATACC 2032 1406 UUUGACUC G UGGCUACU 331 AGTAGCCA GGCTAGCTACAACGA CACGAGTC 2034 1412 UCCUGGGU A CUCGUUAA 333 TCAACCGA GGCTAGCTACAACGA CACGAGTC 2034 1412 UCCUGGGU A CUCGUUAA 333 TCAACCGA GGCTAGCTACAACGA AGCCACGA 2035 1416 GGCUACUC G UUAAUUAU 334 ATAATTAA GGCTAGCTACAACGA AGCCACGA 2035 1420 ACUCGUUA A UUAUCCAAG 335 CTCTTGA GGCTAGCTACAACGA AGCCACGA 2036 1420 ACUCGUUA A UUAUCCAAG 335 CTCTTGA GGCTAGCTACAACGA AGCTAGAC 2037 1423 CGUUAAUU A UCAAGGAC 336 CTCCTTGA GGCTAGCTACAACGA AATTAACG 2038 1430 UAUCCAAGGA C GUAACUG 337 CAGTTAGA GGCTAGCTACAACGA AATTAACG 2038 1432 UCAAGGAC G UAACUGA 338 TCCGTCTA GGCTAGCTACAACGA ATCTCTCT 2040 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA CCCTTGAT 2039 1432 UCAAGGAC G UAACUGA 338 TCCCTCTA GGCTAGCTACAACGA CTCCTTCA 2041 1445 UGAAGAGG A UGCAAGGA 340 TCCCTCCA GGCTAGCTACAACGA CTCCTTCA 2041 1445 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA CTCCTTCA 2042 1445 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA CTCCTTCA 2044 1457 AGGGAAUU A UACAAUCU 343 AGATTCTA GGCTAGCTACAACGA ATCCCTCT 2043 1459 GGAAUUAU A CAAUCUU 344 CAAGATTG GGCTAGCTACAACGA ATCCTCTC 2045 1459 GGAAUUAU A CAAUCUU 346 ATCCCCTG GGCTAGCTACAACGA ATCCTCTC 2045 1460 AUUACAA 347 CTTGTATA GGCTAGCTACAACGA ATCCTCTC 2045 1467 ACGAUCUA A UGUGACA 346 ATCCCCTG GGCTAGCTACAACGA ATCATCTC 2046 1472 CUUCAGC A UAAAAAC 347 CTTTTATA GGCTAGCTACAACGA ATCATCTTT 2051 1482 AUAAAACA G UCAAUGU 356	1375	GGUUACCU G CGACUGAG	324	CTCAGTCG GGCTAGCTACAACGA AGGTAACC	2026
1390	1378	UACCUGCG A CUGAGAAA	325	TTTCTCAG GGCTAGCTACAACGA CGCAGGTA	2027
1394 AUCUGCUC G CUAUUUGA 328	1386	ACUĠAGAA A UCUGCUCG	326	CGAGCAGA GGCTAGCTACAACGA TTCTCAGT	2028
1397	1390	AGAAAUCU G CUCGCUAU	327	ATAGCGAG GGCTAGCTACAACGA AGATTTCT	2029
1402 GCUAUUUG A CUCGUGGC 330 GCCACGAG GGCTAGCTACAACGA CAAATAGC 2032 1406 UUUGACUC G UGGCUACU 331 AGTAGCCA GGCTAGCTACAACGA GAGTCAAA 2033 1409 GACUCGUG G CUACUCGU 332 ACGAGTAG GGCTAGCTACAACGA CACGAGTC 2034 1412 UCGUGGCU A CUCGUUAA 333 TTAACGAG GGCTAGCTACAACGA AGCCACGA 2035 1416 GGCUACUC G UUAAUUAU 334 ATAATTAA GGCTAGCTACAACGA AGCCACGA 2035 1412 ACCUGUUAA UUAUCAAG 335 CTTCATTAA GGCTAGCTACAACGA AGCACGAGT 2036 1420 ACCUGUUAA UUAUCAAG 335 CTTCATTAA GGCTAGCTACAACGA TAACGAGT 2037 1423 CGUUAAUU A UCAAGGAC 336 GTCCTTGA GGCTAGCTACAACGA AATTAACG 2038 1430 UAUCAAGG A CGUAACUG 337 CAGTTAGG GGCTAGCTACAACGA ATTAACG 2038 1432 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTAGCTACAACGA CCTTGATA 2039 1433 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTAGCTACAACGA CCTTGATA 2039 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA CCTCTTGA 2040 1445 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TCCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTGC GGCTAGCTACAACGA ATCCTCTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCTCTT 2043 1455 AGGAAUUA U ACCAAUCUU 343 AGATTGTA GGCTAGCTACAACGA ATCCTCTT 2045 1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATAATTCC 2045 1462 AUUAUACAA UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA ATAATTCC 2046 1463 ACAAUCUU G CUGAGCAU 346 ATCCTCAG GGCTAGCTACAACGA ATAATTCC 2046 1464 ACAAUCUU G CUGAGCAU 346 ATCCTCAG GGCTAGCTACAACGA ATAATTCC 2046 1470 ACAAUCUU G CUGAGCAU 346 ATCCTCAG GGCTAGCTACAACGA ATAATTCC 2046 1471 UGCUGAGC A UAAAACA 347 GTTTTATG GGCTAGCTACAACGA ATAATTCC 2056 1472 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTGATATAT 2057 1482 AUAAAACA G UCAAUGU 350 ACATTTGA GGCTAGCTACAACGA TTGATCAT 2051 1483 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1484 ACAGUCAA A UGUGUUUAA 351 TAAACACA GGCTAGCTACAACGA TTTTATGCT 2051 1489 AGUCAAAU G UGUAUAAA 353 TTTTAAAC GGCTAGCTACAACGA TTTTATGCT 2051 1489 AGUCAAAU G UGUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA TTTTATACC 2056 1499 GUUUAAAAA A CACUCUA 355 ACATTGA GGCTAGCTACAACGA ACTTTTGA 2055 1499 GUUUAAAAA A CACUCUA 355 ACATTGA GGCTAGCTACAACGA ACTTTGA 2057 1504	1394	AUCUGCUC G CUAUUUGA	328	TCAAATAG GGCTAGCTACAACGA GAGCAGAT	2030
1406 UUUGACUC G UGGCUACU 331 AGTAGCCA GGCTAGCTACAACGA GAGTCAAA 2033 1409 GACUCGUG G CUACUCGU 332 ACGAGTAG GGCTAGCTACAACGA CACGAGTC 2034 1412 UCGUGGCU A CUCGUUAA 333 TTAACGAG GGCTAGCTACAACGA AGCCACGA 2035 1416 GGCUACUC G UUAAUUAU 334 ATAATTAA GGCTAGCTACAACGA AGCAACGA 2036 1420 ACUCGUUA A UUAUCAAG 335 CTTGATAA GGCTAGCTACAACGA TAACGAGT 2037 1423 CGUAADUU A UCAAGGAC 336 GTCCTTGA GGCTAGCTACAACGA ATTAACG 2038 1430 UAUCAAGGA C GUAACUG 337 CAGTTACG GGCTAGCTACAACGA CTCTTGA 2039 1432 UCAAGGAC G UAACUGA 338 TTCAGTTA GGCTAGCTACAACGA CTCCTTGA 2040 1435 AGGACGUA A CUGAAGGA 339 CTCTTCAG GGCTAGCTACAACGA TACGTCTC 2041 1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA ATCCTCT 2042 1447 AAGAGGAAU A UACAACA 341 ATTCCCTG GGCTAGCTACAACGA ATCCTCT 2043 1451 UGCAGGAA U AUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCTCT 2045 <td>1397</td> <td>UGCUCGCU A UUUGACUC</td> <td>329</td> <td>GAGTCAAA GGCTAGCTACAACGA AGCGAGCA</td> <td>2031</td>	1397	UGCUCGCU A UUUGACUC	329	GAGTCAAA GGCTAGCTACAACGA AGCGAGCA	2031
1409 GACUCGUG G CUACUCGU 332 ACGAGTAG GGCTAGCTACAACGA CACGAGTC 2034 1412 UCGUGGCU A CUCGUUAA 333 TTAACGAG GGCTAGCTACAACGA AGCCACGA 2035 1416 GGCUACUC G UUAAUUAU 334 ATAATTAA GGCTAGCTACAACGA AGCACGA 2036 1420 ACUCGUUA A UUAUCAAG 335 CTTGATAA GGCTAGCTACAACGA TAACGAGT 2037 1423 CGUUAAUU A UCAAGGAC 336 GTCCTTGA GGCTAGCTACAACGA AATTAACG 2038 1430 UAUCAAGG A CGUAACUG 337 CAGTTACG GGCTAGCTACAACGA ACTAACG 2039 1432 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTAGCTACAACGA CCTCTTGA 2039 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TCCTTCTA 2040 1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA ATCCTCTT 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ATCCTCTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCCTCTT 2045 1457 AGGGAAUUA U ACAAUCUU 344 CAAGATTG GGCTAGCTACAACGA ATCCCTC 2	1402	GCUAUUUG A CUCGUGGC	330	GCCACGAG GGCTAGCTACAACGA CAAATAGC	2032
1412 UCGUGGCU A CUCGUUAA 333 TTAACGAG GGCTAGCTACAACGA AGCCACGA 2035 1416 GGCUACUC G UUAAUUAU 334 ATAATTAA GGCTAGCTACAACGA GAGTAGCC 2036 1420 ACUCGUUA A UUAUCAAG 335 CTTGATAA GGCTAGCTACAACGA AATTAACG 2037 1423 CGUUAAUU A UCAAGGAC 336 GTCCTTGA GGCTAGCTACAACGA AATTAACG 2038 1430 UAUCAAGGA C GUAACUGA 337 CAGTTACG GGCTAGCTACAACGA ACTTGATA 2039 1432 UCAAGGAC G UAACUGA 338 TTCAGTTA GGCTACAACGA GTCCTTGA 2040 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TACGTCT 2041 1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA ATCCTCTT 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ATCCCTCT 2044 1457 AGGAGAUU A UACAAUCU 343 AGATTGTA GGCTAGCTACAACGA ATCCCTCT 2044 1457 AGGAAUUAU A CAAUCUU 344 CAAGATTG GGCTAGCTACAACGA ATAATTCCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA ATAATTCC 2047	1406	UUUGACUC G UGGCUACU	331	AGTAGCCA GGCTAGCTACAACGA GAGTCAAA	2033
1416 GGCUACUC G UUAAUUAU 334 ATAATTAA GGCTAGCTACAACGA GAGTAGCC 2036 1420 ACUCGUUA A UUAUCAAG 335 CTTGATAA GGCTAGCTACAACGA TAACGAGT 2037 1423 CGUUAAUU A UCAAGGAC 336 GTCCTTGA GGCTAGCTACAACGA AATTAACG 2038 1430 UAUCAAGGA C GUAACUG 337 CAGTTACCA GGCTAGCTACAACGA CCTTGATA 2039 1432 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTAGCTACAACGA GTCCTTCA 2040 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TCCCTTCA 2041 1445 UGAAGAGA A CUGAAGAG 340 TCCCTGCA GGCTAGCTACAACGA ACCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ACCTCTTT 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ACCTCTTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ACTCCTCTT 2044 1457 AGGAAUUAU A CAAUCUU 343 AGATTGTA GGCTACAACGA ATAATTCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA AAGATTTT 2	1409	GACUCGUG G CUACUCGU	332	ACGAGTAG GGCTAGCTACAACGA CACGAGTC	2034
1420 ACUCGUUA A UUAUCAAG 335 CTTGATAA GGCTAGCTACAACGA TAACGACT 2037 1423 CGUUAAUU A UCAAGGAC 336 GTCCTTGA GGCTAGCTACAACGA AATTAACG 2038 1430 UAUCAAGG A CGUAACUG 337 CAGTTACG GGCTAGCTACAACGA CCTTGATA 2039 1432 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTAGCTACAACGA GTCCTTGA 2040 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TACGTCCT 2041 1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA CCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTACAACGA ATCCCTCTCA 2044 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTACAACGA ATCCCTCTCA 2044 1457 AGGGAAUU A UACAAUCU 343 AGATTGTA GGCTAGCTACAACGA ATCCCT 2045 1459 GGAAUAUA A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATAATTCC 2046 1462 AUJAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TATATATT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTACCAACGA TAGACCA TAGACCA TAGACCA CAGACAA <td>1412</td> <td>UCGUGGCU A CUCGUUAA</td> <td>333</td> <td>TTAACGAG GGCTAGCTACAACGA AGCCACGA</td> <td>2035</td>	1412	UCGUGGCU A CUCGUUAA	333	TTAACGAG GGCTAGCTACAACGA AGCCACGA	2035
1423 CGUUAAUU A UCAAGGAC 336 GTCCTTGA GGCTACCAACGA AATTAAGG 2038 1430 UAUCAAGG A CGUAACUG 337 CAGTTACG GGCTACCAACGA CCTTGATA 2039 1432 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTACCAACGA GTCCTTGA 2040 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTACCAACGA TACGTCT 2041 1445 UGAAGAGA UGCAGGGA 340 TCCCTGCA GGCTACCAACGA ACCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTACCAACGA ACCTCTTCA 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTACAACGA ATCCCTGA 2044 1457 AGGGAAUU A UACAAUCU 343 AGATTGTA GGCTAGCTACAACGA ATCCCT 2045 1459 AGGAAUAU A UACAAUCU 344 CAAGATTG GGCTAGCTACAACGA ATACTCC 2046 1462 AUJAUACA A UCUUGCUG 345 CAGCAAGA GGCTACCAACGA ATACTCC 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTACCAACGA AAGATTCT 2048 1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA TTGACAGA 2050	1416	GGCUACUC G UUAAUUAU	334	ATAATTAA GGCTAGCTACAACGA GAGTAGCC	2036
1430 UAUCAAGG A CGUAACUG 337 CAGTTACG GGCTAGCTACAACGA CCTTGATA 2039 1432 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTAGCAACGA GTCCTTGA 2040 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TACGTCCT 2041 1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA CCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ATCCTCTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCTCTC 2044 1457 AGGGAAUUA U ACAAUCUU 343 AGATTGTA GGCTAGCTACAACGA ATCCTCCT 2045 1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATATCTC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TGATATAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA TCTAGCAAG 2049 1479 UGCUGAG G AUAAAACAG 347 GTTTTATG GGCTAGCTACAACGA TCTAGCAA 2049 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGC <td>1420</td> <td>ACUCGUUA A UUAUCAAG</td> <td>335</td> <td>CTTGATAA GGCTAGCTACAACGA TAACGAGT</td> <td>2037</td>	1420	ACUCGUUA A UUAUCAAG	335	CTTGATAA GGCTAGCTACAACGA TAACGAGT	2037
1432 UCAAGGAC G UAACUGAA 338 TTCAGTTA GGCTAGCTACAACGA GTCCTTGA 2040 1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TACGTCCT 2041 1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA CCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ATCCTCTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCCTTCA 2044 1457 AGGGAAUU A UACAAUCU 343 AGATTGTA GGCTACAACGA ATCCCT 2045 1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATATTCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TGTATAAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA TGAACAGA TCAGCAAGA 2049 1472 CUUGCUGA G CAUAAAACC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAAG 2059 1479 AGCAUAAA A CAGUCAAA 348 CTGTTTTA GGCTAGCTACAACGA TTTTAGCT 2051 1482 AUAAAACAG G UCAAAUGU 350 ACATTGA GGCTAGCTACAACGA TTTTAGCT	1423	CGUUAAUU A UCAAGGAC	336	GTCCTTGA GGCTAGCTACAACGA AATTAACG	2038
1435 AGGACGUA A CUGAAGAG 339 CTCTTCAG GGCTAGCTACAACGA TACGTCCT 2041 1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA CCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ATCCTCTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCTCTCA 2044 1457 AGGGAAUU A UACAAUCU 343 AGATTGTA GGCTAGCTACAACGA ATCTCCCT 2045 1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATAATTCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TGTATAAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA TGATCATATAT 2047 1474 UGCUGAGC A UAAAACAC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAA 2049 1474 UGCUGAGC A UAAAACAC 348 CTGTTTTA GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TTTTTTT 2052 1487 ACAGUCAA A UGUGUUAAA 351 TAAACACA GGCTAGCTACAACGA ACATTTGA <	1430	UAUCAAGG A CGUAACUG	337	CAGTTACG GGCTAGCTACAACGA CCTTGATA	2039
1445 UGAAGAGG A UGCAGGGA 340 TCCCTGCA GGCTAGCTACAACGA CCTCTTCA 2042 1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ATCCTCTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCCTGCA 2044 1457 AGGGAAUU A UACAAUCU 343 AGATTGTA GGCTAGCTACAACGA AATTCCCT 2045 1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATAATTCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TGTATAAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA TGTATAAT 2047 1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAG 2049 1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTACAACGA TTTTATGCT 2051 1487 ACAGUCAA A UGUGUUA 351 TAAACACA GGCTAGCTACAACGA TTTGACTT 2053 1489 AGUCAAAU G UGUUAAAA 352 TTTAAACA GGCTACAACGA ATTTGAC 2056	1432	UCAAGGAC G UAACUGAA	338	TTCAGTTA GGCTAGCTACAACGA GTCCTTGA	2040
1447 AAGAGGAU G CAGGGAAU 341 ATTCCCTG GGCTAGCTACAACGA ATCCTCTT 2043 1454 UGCAGGGA A UUAUACAA 342 TTGTATAA GGCTAGCTACAACGA ATCCCTGCA 2044 1457 AGGGAAUU A UACAAUCU 343 AGATTGTA GGCTAGCTACAACGA AATTCCCT 2045 1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATAATTCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA ATAAATTCC 2046 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA TGTATAAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA AAGATTGT 2048 1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA ACGCAAG 2049 1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA GCTCAGCA 2050 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAAC GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA AGTTTTA 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA AGTGAGGT 2059 1516 CCACUCUA UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA AATTAGAG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1.435	AGGACGUA A CUGAAGAG	339	CTCTTCAG GGCTAGCTACAACGA TACGTCCT	2041
1454 UGCAGGGA A UUAUACAA 142 TTGTATAA GGCTAGCTACAACGA TCCCTGCA 2044 1457 AGGGAAUU A UACAAUCU 1459 GGAAUUAU A CAAUCUUG 1440 CAAGATTG GGCTAGCTACAACGA AATTCCCT 1459 GGAAUUAU A CAAUCUUG 1440 CAAGATTG GGCTAGCTACAACGA ATAATTCC 1461 AUAUACA A UCUUGCUG 1450 ACAAUCUU G CUGAGCAU 1467 ACAAUCUU G CUGAGCAU 1467 CUUGCUGA G CAUAAAAC 1467 ACAAUCUU G CUGAGCAU 1479 AGCAUAAA A CAGUCAAA 1470 CUUGCUGA G CAUAAACAG 1479 AGCAUAAA A CAGUCAAA 1479 AGCAUAAA A CAGUCAAA 1479 AGCAUAAA A CAGUCAAA 1479 AGCAUAAA A CAGUCAAA 1480 ACAGUCAA A UGUGUUUA 1510 ACATTTGA GGCTAGCTACAACGA TTAATGCT 1481 ACAGUCAA A UGUGUUUA 1511 TAAACACA GGCTAGCTACAACGA TTGACTGT 1482 AUAAAACA G UCAAAUGU 1510 ACATTTGA GGCTAGCTACAACGA TTGACTGT 1489 AGUCAAAU G UGUUUAAA 1512 TTAAACACA GGCTAGCTACAACGA ATTTGACT 1491 UCAAAUGU G UUAAAAAA 152 TTTAAACA GGCTAGCTACAACGA ACATTTGA 1491 UCAAAUGU G UUAAAAAA 153 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 1499 GUUUAAAA A CCUCACUG 1504 AAAACCUC A CUGCCACU 1554 CAGTGAGG GGCTAGCTACAACGA ACATTTGA 1507 ACCUCACU G CCACUCUA 1556 TAGAGTGG GGCTAGCTACAACGA AGGATTTT 1507 ACCUCACU G CCACUCUA 1557 AATTAGAG GGCTAGCTACAACGA AGGATGAGT 1508 ACACUCACU G CCACUCUA 1558 ATTGACAA GGCTAGCTACAACGA AGGATGA 1509 CCACUCUA A UUGUCAAU 1519 CUCUAAUU G UCAAUGUG 1529 CACATTGA GGCTAGCTACAACGA AATTAGAG 1510 CUCUACUG G CACCUCAAUGA	1445	UGAAGAGG A UGCAGGGA	340	TCCCTGCA GGCTAGCTACAACGA CCTCTTCA	2042
1457 AGGGAAUU A UACAAUCU 343 AGATTGTA GGCTAGCTACAACGA AATTCCCT 2045 1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATAATTCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TGTATAAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA TAGATTGT 2048 1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAAG 2049 1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA GCTCAGCA 2050 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA CUUCACUG 354 CAGTGAGG GGCTAGCTACAACGA ACATTTGA 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA AGTGAGGT 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1447	AAGAGGAU G CAGGGAAU	341	ATTCCCTG GGCTAGCTACAACGA ATCCTCTT	2043
1459 GGAAUUAU A CAAUCUUG 344 CAAGATTG GGCTAGCTACAACGA ATAATTCC 2046 1462 AUUAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TGTATAAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA AAGATTGT 2048 1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAAG 2049 1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA TCAGCAAG 2050 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA ACATTTGA 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA AGTGAGGT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA AGTGAGGT 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA AGTGAGGT 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA AATTAGAG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1454	UGCAGGGA A UUAUACAA	342	TTGTATAA GGCTAGCTACAACGA TCCCTGCA	2044
1462 AUJAUACA A UCUUGCUG 345 CAGCAAGA GGCTAGCTACAACGA TGTATAAT 2047 1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA AAGATTGT 2048 1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAAG 2049 1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA GCTCAGCA 2050 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA TAGAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1457	AGGGAAUU A UACAAUCU	343	AGATTGTA GGCTAGCTACAACGA AATTCCCT	2045
1467 ACAAUCUU G CUGAGCAU 346 ATGCTCAG GGCTAGCTACAACGA AAGATTGT 2048 1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAAG 2049 1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA GCTCAGCA 2050 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA ACATTTGA 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA AGTGAGGT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1459	GGAAUUAU A CAAUCUUG	344	CAAGATTG GGCTAGCTACAACGA ATAATTCC	2046
1472 CUUGCUGA G CAUAAAAC 347 GTTTTATG GGCTAGCTACAACGA TCAGCAAG 2049 1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA GCTCAGCA 2050 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA ACATTTGA 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1462	AUUAUACA A UCUUGCUG	345	CAGCAAGA GGCTAGCTACAACGA TGTATAAT	2047
1474 UGCUGAGC A UAAAACAG 348 CTGTTTTA GGCTAGCTACAACGA GCTCAGCA 2050 1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1467	ACAAUCUU G CUGAGCAU	346	ATGCTCAG GGCTAGCTACAACGA AAGATTGT	2048
1479 AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1472	CUUGCUGA G CAUAAAAC	347	GTTTTATG GGCTAGCTACAACGA TCAGCAAG	2049
AGCAUAAA A CAGUCAAA 349 TTTGACTG GGCTAGCTACAACGA TTTATGCT 2051 1482 AUAAAACA G UCAAAUGU 350 ACATTTGA GGCTAGCTACAACGA TGTTTTATT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1474	UGCUGAGC A UAAAACAG	348	CTGTTTTA GGCTAGCTACAACGA GCTCAGCA	2050
AUAAAACA G UCAAAUGU 350 ACATTIGA GGCTAGCTACAACGA TGTTTTAT 2052 1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTIGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1479	AGCAUAAA A CAGUCAAA	349	TTTGACTG GGCTAGCTACAACGA TTTATGCT	2051
1487 ACAGUCAA A UGUGUUUA 351 TAAACACA GGCTAGCTACAACGA TTGACTGT 2053 1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1482	AUAAAACA G UCAAAUGU	350		
1489 AGUCAAAU G UGUUUAAA 352 TTTAAACA GGCTAGCTACAACGA ATTTGACT 2054 1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1487	ACAGUCAA A UGUGUUUA	351		
1491 UCAAAUGU G UUUAAAAA 353 TTTTTAAA GGCTAGCTACAACGA ACATTTGA 2055 1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1489	AGUCAAAU G UGUUUAAA	352		
1499 GUUUAAAA A CCUCACUG 354 CAGTGAGG GGCTAGCTACAACGA TTTTAAAC 2056 1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1491	UCAAAUGU G UUUAAAAA	353	TTTTTAAA GGCTAGCTACAACGA ACATTTGA	
1504 AAAACCUC A CUGCCACU 355 AGTGGCAG GGCTAGCTACAACGA GAGGTTTT 2057 1507 ACCUCACU G CCACUCUA 356 TAGAGTGG GGCTAGCTACAACGA AGTGAGGT 2058 1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1499	GUUUAAAA A CCUCACUG	354	CAGTGAGG GGCTAGCTACAACGA TTTTAAAC	
1510 UCACUGCC A CUCUAAUU 357 AATTAGAG GGCTAGCTACAACGA GGCAGTGA 2059 1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1504	AAAACCUC A CUGCCACU	355	AGTGGCAG GGCTAGCTACAACGA GAGGTTTT	
1516 CCACUCUA A UUGUCAAU 358 ATTGACAA GGCTAGCTACAACGA TAGAGTGG 2060 1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTAGCTACAACGA AATTAGAG 2061	1507	ACCUCACU G CCACUCUA	356	TAGAGTGG GGCTAGCTACAACGA AGTGAGGT	2058
1519 CUCUAAUU G UCAAUGUG 359 CACATTGA GGCTACAACGA AATTAGAG 2061	1510	UCACUGCC A CUCUAAUU	357	AATTAGAG GGCTAGCTACAACGA GGCAGTGA	2059
TOO DAYINGTON D. HOUSENERS OF THE PROPERTY OF	1516	CCACUCUA A UUGUCAAU	358	ATTGACAA GGCTAGCTACAACGA TAGAGTGG	2060
1523 AAUUGUCA A UGUGAAAC 360 GTTTCACA GGCTAGCTACAACGA TGACAATT 2062	1519	CUCUAAUU G UCAAUGUG	359	CACATTGA GGCTAGCTACAACGA AATTAGAG	2061
	1523	AAUUGUCA A UGUGAAAC	360	GTTTCACA GGCTAGCTACAACGA TGACAATT	2062

1505	INICIANA A TICANA ACCO	2.61	COCCERCA COTA COTA CA A COA A REECA CA A	2063
1525	UUGUCAAU G UGAAACCC	361	GGGTTTCA GGCTAGCTACAACGA ATTGACAA	2063
1530	AAUGUGAA A CCCCAGAU	362	ATCTGGGG GGCTAGCTACAACGA TTCACATT TTCGTAAA GGCTAGCTACAACGA CTGGGGTT	2064
1537	AACCCCAG A UUUACGAA	363	CCTTTTCG GGCTAGCTACAACGA CIGGGGT	2065
1541	CCAGAUUU A CGAAAAGG	364		2066
1552	ACGAAAAG G CCGUGUCA AAAAGGCC G UGUCAUCG	365 366	TGACACGG GGCTAGCTACAACGA CTTTTCGT CGATGACA GGCTAGCTACAACGA GGCCTTTT	2067
1554				2068
1554	AAGGCCGU G UCAUCGUU	367	AACGATGA GGCTAGCTACAACGA ACGGCCTT	2069
1560	GCCGUGUC A UCGUUUCC GUGUCAUC G UUUCCAGA	368	GGAAACGA GGCTAGCTACAACGA GACACGGC	2070
		369	TCTGGAAA GGCTAGCTACAACGA GATGACAC	2071
1568	GUUUCCAG A CCCGGCUC	370	GAGCCGGG GGCTAGCTACAACGA CTGGAAAC	2072
1573	CAGACCCG G CUCUCUAC	371	GTAGAGAG GGCTAGCTACAACGA CGGGTCTG	2073
1580	GGCUCUCU A CCCACUGG	372	CCAGTGGG GGCTAGCTACAACGA AGAGAGCC	2074
1584	CUCUACCC A CUGGGCAG	373	CTGCCCAG GGCTAGCTACAACGA GGGTAGAG	2075
	CCCACUGG G CAGCAGAC	374	GTCTGCTG GGCTAGCTACAACGA CCAGTGGG	2076
1592	ACUGGGCA G CAGACAAA	375	TTTGTCTG GGCTAGCTACAACGA TGCCCAGT	2077
1596	GGCAGCAG A CAAAUCCU	376	AGGATTTG GGCTAGCTACAACGA CTGCTGCC	2078
1600	GCAGACAA A UCCUGACU	377	AGTCAGGA GGCTAGCTACAACGA TTGTCTGC	2079
1606	AAAUCCUG A CUUGUACC	378	GGTACAAG GGCTAGCTACAACGA CAGGATTT	2080
1610	CCUGACUU G UACCGCAU	379	ATGCGGTA GGCTAGCTACAACGA AAGTCAGG	2081
1612	UGACUUGU A CCGCAUAU	380	ATATGCGG GGCTAGCTACAACGA ACAAGTCA	2082
1615	CUUGUACC G CAUAUGGU	381	ACCATATG GGCTAGCTACAACGA GGTACAAG	2083
1617	UGUACCGC A UAUGGUAU	382	ATACCATA GGCTAGCTACAACGA GCGGTACA	2084
1619	UACCGCAU A UGGUAUCC	383	GGATACCA GGCTAGCTACAACGA ATGCGGTA	2085
1622	CGCAUAUG G UAUCCCUC	384	GAGGGATA GGCTAGCTACAACGA CATATGCG	2086
1624	CAUAUGGU A UCCCUCAA	385	TTGAGGGA GGCTAGCTACAACGA ACCATATG	2087
1632	AUCCCUCA A CCUACAAU	386	ATTGTAGG GGCTAGCTACAACGA TGAGGGAT	2088
1636	CUCAACCU A CAAUCAAG	387	CTTGATTG GGCTAGCTACAACGA AGGTTGAG	2089
1639	AACCUACA A UCAAGUGG	388	CCACTTGA GGCTAGCTACAACGA TGTAGGTT	2090
1644	ACAAUCAA G UGGUUCUG	389	CAGAACCA GGCTAGCTACAACGA TTGATTGT	2091
1647	AUCAAGUG G UUCUGGCA	390	TGCCAGAA GGCTAGCTACAACGA CACTTGAT	2092
1653	UGGUUCUG G CACCCCUG	391	CAGGGGTG GGCTAGCTACAACGA CAGAACCA	2093
1655	GUUCUGGC A CCCCUGUA	392	TACAGGGG GGCTAGCTACAACGA GCCAGAAC	2094
1661	GCACCCCU G UAACCAUA	393	TATGGTTA GGCTAGCTACAACGA AGGGGTGC	2095
1664	CCCCUGUA A CCAUAAUC	394	GATTATGG GGCTAGCTACAACGA TACAGGGG	2096
1667	CUGUAACC A UAAUCAUU	395	AATGATTA GGCTAGCTACAACGA GGTTACAG	2097
1670	UAACCAUA A UCAUUCCG	396	CGGAATGA GGCTAGCTACAACGA TATGGTTA	2098
1673	CCAUAAUC A UUCCGAAG	397	CTTCGGAA GGCTAGCTACAACGA GATTATGG	2099
1681	AUUCCGAA G CAAGGUGU	398	ACACCTTG GGCTAGCTACAACGA TTCGGAAT	2100
1686	GAAGCAAG G UGUGACUU	399	AAGTCACA GGCTAGCTACAACGA CTTGCTTC	
1688	AGCAAGGU G UGACUUUU	400	AAAAGTCA GGCTAGCTACAACGA ACCTTGCT	2102
1691	AAGGUGUG A CUUUUGUU	401	AACAAAAG GGCTAGCTACAACGA CACACCTT	2103
1697	UGACUUUU G UUCCAAUA	402	TATTGGAA GGCTAGCTACAACGA AAAAGTCA	2104
1703	UUGUUCCA A UAAUGAAG	403	CTTCATTA GGCTAGCTACAACGA TGGAACAA	2105
1706	UUCCAAUA A UGAAGAGU	404	ACTCTTCA GGCTAGCTACAACGA TATTGGAA	2106
1713	AAUGAAGA G UCCUUUAU	405	ATAAAGGA GGCTAGCTACAACGA TCTTCATT	2107
1720	AGUCCUUU A UCCUGGAU	406	ATCCAGGA GGCTAGCTACAACGA AAAGGACT	2108
1727	UAUCCUGG A UGCUGACA	407	TGTCAGCA GGCTAGCTACAACGA CCAGGATA	2109
1729	UCCUGGAU G CUGACAGC	408	GCTGTCAG GGCTAGCTACAACGA ATCCAGGA	2110
1733	GGAUGCUG A CAGCAACA	409	TGTTGCTG GGCTAGCTACAACGA CAGCATCC	2111
1736	UGCUGACA G CAACAUGG	410	CCATGTTG GGCTAGCTACAACGA TGTCAGCA	2112
1739	UGACAGCA A CAUGGGAA	411	TTCCCATG GGCTAGCTACAACGA TGCTGTCA	2113
1741	ACAGCAAC A UGGGAAAC	412	GTTTCCCA GGCTAGCTACAACGA GTTGCTGT	2114

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1748				
1766	1748	CAUGGGAA A CAGAAUUG	413	CAATTCTG GGCTAGCTACAACGA TTCCCATG 2115
1762	1753	GAAACAGA A UUGAGAGC	414	GCTCTCAA GGCTAGCTACAACGA TCTGTTTC 2116
1765	1760	AAUUGAGA G CAUCACUC	415	GAGTGATG GGCTAGCTACAACGA TCTCAATT 2117
1770	1762	UUGAGAGC A UCACUCAG	416	CTGAGTGA GGCTAGCTACAACGA GCTCTCAA 2118
1772	1765	AGAGCAUC A CUCAGCGC	417	GCGCTGAG GGCTAGCTACAACGA GATGCTCT 2119
1774	1770	AUCACUCA G CGCAUGGC	418	GCCATGCG GGCTAGCTACAACGA TGAGTGAT 2120
1777	1772	CACUCAGC G CAUGGCAA	419	TTGCCATG GGCTAGCTACAACGA GCTGAGTG 2121
1780	1774	CUCAGCGC A UGGCAAUA	420	TATTGCCA GGCTAGCTACAACGA GCGCTGAG 2122
1783	1777	AGCGCAUG G CAAUAAUA	421	TATTATTG GGCTAGCTACAACGA CATGCGCT 2123
1796	1780	GCAUGGCA A UAAUAGAA	422	TTCTATTA GGCTAGCTACAACGA TGCCATGC 2124
1801	1783	UGGCAAUA A UAGAAGGA	423	TCCTTCTA GGCTAGCTACAACGA TATTGCCA 2125
1804	1796	AGGAAAGA A UAAGAUGG	424	CCATCTTA GGCTAGCTACAACGA TCTTTCCT 2126
1808	1801	AGAAUAAG A UGGCUAGC	425	GCTAGCCA GGCTAGCTACAACGA CTTATTCT 2127
1810	1804	AUAAGAUG G CUAGCACC	426	GGTGCTAG GGCTAGCTACAACGA CATCTTAT 2128
1816	1808	GAUGGCUA G CACCUUGG	427	CCAAGGTG GGCTAGCTACAACGA TAGCCATC 2129
1819	1810	UGGCUAGC A CCUUGGUU	428	AACCAAGG GGCTAGCTACAACGA GCTAGCCA 2130
1822 UGGUUGUG G CUGACUCU 431 AGAGTCAG GGCTAGCTACAACGA CACAACCA 2133 1826 UGUGGCUG A CUCUAGAA 432 TTCTAGAG GGCTAGCTACAACGA CAGCCACA 2134 1834 ACUCUAGA A UUUCUGGA 433 TCCAGAAA GGCTAGCTACAACGA TCCAGAGT 2135 1843 UUUCUGGA A UCUACAUU 434 AATGTAGA GGCTAGCTACAACGA TCCAGAAA 2136 1847 UGGAAUCU A CAUUUGCA 435 TGCAAATG GGCTAGCTACAACGA GAGATTCC 2137 1849 GAAUCUAC A UUUGCAUA 436 TATGCAAA GGCTAGCTACAACGA GAAATGTAG 2138 1853 CUACAUUUG C AUAGCUU 437 AAGCTATG GGCTACCAACGA AAATGTAG 2138 1855 ACAUUUGC A UAGCUUC 438 GGAACTA GGCTAGCTACAACGA AAATGTAG 2140 1858 UUUGCAUA G CUUCCAAU 439 ATTGGAAA GGCTAGCTACAACGA TATGCAACGA 2141 1865 AGCUUCCA A UAAAGUU 440 CAACTTTA GGCTACCAACGA TATTATTGG 2142 1870 CCAAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA TTTTTTGG 2145 1870 CAGACAGA 442 TCCCCCAG GGCTAGCTACAACGA TTTTTTGC 2146 </td <td>1816</td> <td>GCACCUUG G UUGUGGCU</td> <td>429</td> <td>AGCCACAA GGCTAGCTACAACGA CAAGGTGC 2131</td>	1816	GCACCUUG G UUGUGGCU	429	AGCCACAA GGCTAGCTACAACGA CAAGGTGC 2131
1926	1819	CCUUGGUU G UGGCUGAC	430	GTCAGCCA GGCTAGCTACAACGA AACCAAGG 2132
1834 ACUCUAGA A UUUCUGGA 433 TCCAGAAA GGCTAGCTACAACGA TCTAGAGT 2135 1843 UUUCUGGA A UCUACAUU 434 AATGTAGA GGCTAGCAACGA TCCAGAAA 2136 1847 UGGAAUCU A CAUUUGCA 435 TGCAAATG GGCTAGCTACAACGA AGATTCCA 2137 1849 GAAUCUAC A UUUGCAUA 436 TATGCAAA GGCTAGCTACAACGA AGATTCA 2138 1853 CUACAUUU G CAUGCUU 437 AAGCTATG GGCTAGCTACAACGA AAATGTAG 2139 1855 ACAUUUGC A UAGCUUCC 438 GGAAGCTA GGCTAGCTACAACGA TATGCAAA 2141 1865 AGCUUCCA A UAAAGUU 449 ATTGGAAG GGCTAGCTACAACGA TATGCAAA 2141 1865 AGCUUCCA A UAAAGUU 440 CAACTTTA GGCTAGCTACAACGA TTGCAACGA 1742 1870 CCCAAUAAA G UUGGGAC 441 AGTCCCAA GGCTAGCTACAACGA CCCAACTT 2142 1879 UUGGGACU G UGGGAAGA 442 TCCCACAG GGCTAGCTACAACGA CCCAACTT 2146 1889 GGGAAGAA A CAUAAGCU 444 AGCTTAG GGCTAGCTACAACGA TTCTTCC 2146 1891 CAACAUAA G CUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT	1822	UGGUUGUG G CUGACUCU	431	AGAGTCAG GGCTAGCTACAACGA CACAACCA 2133
1843 UUUCUGGA A UCUACAUU 434 AATGTAGA GSCTAGCTACAACGA TCCAGAAA 2136 1847 UGGAAUCU A CAUUUGCA 435 TGCAAATG GGCTACCAACGA AGATTCCA 2137 1849 GAAUCUAC A UUUGCAUA 436 TATGCAAA GGCTACCAACGA AGATTCCA 2138 1853 CUACAUUU G CAUAGCUU 437 AAGCTATG GGCTAGCTACAACGA AAATGTAG 2139 1855 ACAUUUGC A UAGCUUC 438 GGAAGCTA GGCTAGCTACAACGA CGAATGT 2140 1858 UUUGCAUA G CUUCCAAU 439 ATTGGAAG GGCTAGCTACAACGA TGGAAGCT 2141 1865 AGCUUCCA A UAAAGUUG 440 CAACTTTA GGCTAGCTACAACGA TGTAATGT 2142 1870 CCAAUAAA G UUGGGAC 441 AGTCCCAA GGCTAGCTACAACGA TTATTGTG 2143 1879 UUGGAACA 442 TCCCACAG GGCTAGCTACAACGA CCCAACTT 2144 1879 UUGGAACA 444 AGCTTATG GGCTACAACGA TTCTTCCC 2145 1889 GGGAAGAA A CAUAAGCUU 444 AGCTTATG GGCTACAACGA GTTTCTTCC 2146 1891 AAACAUAA G CUUUAUA 446 AAAGCTTA GGCTACAACGA GTTTCTTC 2147 <	1826	UGUGGCUG A CUCUAGAA	432	TTCTAGAG GGCTAGCTACAACGA CAGCCACA 2134
1847 UGGAAUCU A CAUUUGCA 435 TGCAAATG GCTAGCTACAACGA AGATTCCA 2137 1849 GAAUCUAC A UUUGCAUA 436 TATGCAAA GGCTAGCTACAACGA GTAGATTC 2138 1853 CUACAUUU G CAUAGCUU 437 AAGGTATG GGCTAGCTACAACGA AAATTTAG 2139 1855 ACAUUUGC A UAGCUUC 438 GGAAGCTA GGCTAGCTACAACGA CGAATTTT 2140 1858 UUUGCAUA G CUUCCAAU 439 ATTGGAAG GGCTAGCTACAACGA TATGCAAA 2141 1865 AGCUUCCA A UAAAGUU 440 CAACTTTA GGCTAGCTACAACGA TATGCAAA 2142 1870 CCAAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA TTTATTGG 2143 1876 AAGUUGGG A CUGUGGGA 442 TCCCCACAG GGCTAGCTACAACGA AGTCCCAA 2144 1879 UUGGAAGA 443 TCTTCCC AGCTAGCTACAACGA ATCTTCCC 2146 1889 GGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA ATCTTCCC 2146 1891 GAAGAAAC A UAAGCUU 445 AAAGCTTA GGCTAGCTACAACGA ATTATGTT 2147 1895 AAACUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA ATAAAAGCT 2147 </td <td>1834</td> <td>ACUCUAGA A UUUCUGGA</td> <td>433</td> <td>TCCAGAAA GGCTAGCTACAACGA TCTAGAGT 2135</td>	1834	ACUCUAGA A UUUCUGGA	433	TCCAGAAA GGCTAGCTACAACGA TCTAGAGT 2135
1849 GAAUCUAC A UUUGCAUA 436 TATGCAAA GGCTAGCTACAACGA GTAGATTC 2138 1853 CUACAUUU G CAUAGCUU 437 AAGCTATG GGCTAGCTACAACGA AAATGTAG 2139 1855 ACAUUUGC A UAGCUUC 438 GGAAGCTA GGCTAGCTACAACGA GCAAATGT 2140 1858 UUUGCAUA G CUUCCAAU 439 ATTGGAAG GGCTAGCTACAACGA TATGCAAA 2141 1865 AGCUUCCA A UAAAGUUG 440 CAACTTTA GGCTAGCTACAACGA TGGAAGCA 2142 1870 CCCAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA TTATTGTG 2143 1876 AAGUUGGG A CUGUGGA 442 TCCCACAG GGCTAGCTACAACGA TTATTGTG 2143 1879 UUGGGACU G UGGGAAGA 442 TCCTCCCA GGCTAGCTACAACGA AGTCCCAA 2145 1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA TTCTTCC 2146 1891 GAAGAACA UAAGCUUU 445 AAAGCTTA GGCTAGCTACAACGA TTATGTTT 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TATATAT 2149 1903 GCUUUUAU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA ATAAAAGCTT 2149	1843	UUUCUGGA A UCUACAUU	434	AATGTAGA GGCTAGCTACAACGA TCCAGAAA 2136
1853 CUACAUUU G CAUAGCUU 437 AAGCTATG GGCTAGCTACAACGA AAATGTAG 2139 1855 ACAUUUGC A UAGCUUCC 438 GGAAGCTA GGCTAGCTACAACGA GCAAATGT 2140 1858 UUUGCAUA G CUUCCAAU 439 ATTGGAAG GGCTAGCTACAACGA TATGCAAA 2141 1865 AGCUUCCA A UAAAGUUG 440 CAACTTTA GGCTAGCTACAACGA TGGAAGCT 2142 1870 CCCAAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA TTTATTGG 2143 1876 AAGUUGGG A CUGUGGGA 442 TCCCCACAG GGCTAGCTACAACGA CCCAACTT 2144 1879 UUGGGACU G UGGGAAGA 443 TCTTCCCA GGCTAGCTACAACGA CCCAACTT 2145 1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA TTCTTCCC 2146 1891 GAAGAAAC A UAAGCUUU 445 AAAGCTTA GGCTAGCTACAACGA TTTTTTC 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148 1901 AAGCUUUU A UAUCACAGAU 447 CTGTGATA GGCTAGCTACAACGA ATAAAACC 2150 1906 UUUAUAUC A CAGAUGU 449 CACATCTG GGCTAGCTACAACGA ATAAAACC <t< td=""><td>1847</td><td>UGGAAUCU A CAUUUGCA</td><td>435</td><td>TGCAAATG GGCTAGCTACAACGA AGATTCCA 2137</td></t<>	1847	UGGAAUCU A CAUUUGCA	435	TGCAAATG GGCTAGCTACAACGA AGATTCCA 2137
1855 ACAUUUGC A UAGCUUCC 438 GGAAGCTA GGCTAGCTACAACGA GCAAATGT 2140 1858 UUUGCAUA G CUUCCAAU 439 ATTGGAAG GGCTAGCTACAACGA TATGCAAA 2141 1865 AGCUUCCA A UAAAGUUG 440 CAACTTTA GGCTAGCTACAACGA TGGAAGCT 2142 1870 CCAAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA CCCAACTT 2144 1879 UUGGGACU G UGGGAAGA 442 TCCCACAG GGCTAGCTACAACGA CCCAACTT 2144 1889 UUGGGACU G UGGGAAGA 443 TCTTCCCA GGCTAGCTACAACGA AGTCCCAA 2145 1889 GGGAAGAA A CAUAAGCUU 444 AGCTTATG GGCTACAACGA TTCTTCC 2146 1891 GAAGAAAC A UAAGCUUU 445 AAACCTTA GGCTACAACGA GTTCTTCT 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2149 1903 GCUUUUAU A UACACAG 447 CTGTGATA GGCTACAACGA AAAAGCTT 2149 1906 UUUAUAUC A CAGAUGU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1910 UACACAGA U GUGCCAAAU 451 ATTTGGCACA GGCTAGCTACAACGA ATCTGTGA 2152	1849	GAAUCUAC A UUUGCAUA	436	TATGCAAA GGCTAGCTACAACGA GTAGATTC 2138
1858 UUUGCAUA G CUUCCAAU 439 ATTGGAAG GGCTAGCACAGGA TATGCAAA 2141 1865 AGCUUCCA A UAAAGUUG 440 CAACTTTA GGCTAGCTACAACGA TGGAAGCT 2142 1870 CCAAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA TTTATTGG 2143 1876 AAGUUGGG A CUGUGGGA 442 TCCCACAG GGCTAGCACACGA CCCAACTT 2144 1879 UUGGGACU 444 AGCTTACG AGCTACACCGA AGTCCCAA 2145 1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTACAACGA TTCTCCC 2146 1891 GAAGAACA A UAAGCUU 445 AAACGTTA GGCTAGCTACAACGA TTCTCCC 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2149 1901 AAGCUUU A UAUCACAG 447 CTGTGATA GGCTAGCAACGA AAAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTACAACGA ATAAAAGC 2152 1910 UACCAGA G UGCCAAAU 451 ATTGGCAA GGCTAGCTACAACGA ATCTGTGA 2152	1853	CUACAUUU G CAUAGCUU	437	AAGCTATG GGCTAGCTACAACGA AAATGTAG 2139
1865 AGCUUCCA A UAAAGUUG 440 CAACTTTA GGCTAGCTACAACGA TGGAAGCT 2142 1870 CCAAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA TTTATTGG 2143 1876 AAGUUGGG A CUGUGGGA 442 TCCCACAG GGCTAGCTACAACGA CCCAACTT 2144 1879 UUGGGACU G UGGGAAGA 443 TCTTCCCA GGCTAGCTACAACGA AGTCCCAA 2145 1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA TTTCTCC 2146 1891 GAAGAAAC A UAAGCUUU 445 AAACCTTA GGCTAGCTACAACGA TTATGTT 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTT 2149 1901 AAGCUUU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA AAAAGCTT 2149 1903 GCUUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA AAAAGCTT 2149 1906 UUUAUAUC A CAGAUGU 449 CACATCTG GGCTAGCTACAACGA ATAAAAGC 2150 1910 UAUCACAGA U GUGCCAA 450 TTGGCACA GGCTAGCTACAACGA ATCTTGTA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ACATCTGT 2154	1855	ACAUUUGC A UAGCUUCC	438	GGAAGCTA GGCTAGCTACAACGA GCAAATGT 2140
1870 CCAAUAAA G UUGGGACU 441 AGTCCCAA GGCTAGCTACAACGA TTTATTGG 2143 1876 AAGUUGGG A CUGUGGGA 442 TCCCACAG GGCTAGCTACAACGA CCCAACTT 2144 1879 UUGGACU G UGGGAAGA 443 TCTTCCCA GGCTAGCTACAACGA AGTCCCAA 2145 1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA TTCTTCC 2146 1891 GAAGAAAC A UAAGCUUU 445 AAAGCTTA GGCTAGCTACAACGA GTTTCTTC 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148 1901 AAGCUUU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA AAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA GATATAAA 2151 1910 UAUCACAGA UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA ATCTGTA 2152 1912 UCCACAGUG G CCAAAUGG 451 ATTTGGCAC GGCTAGCTACAACGA ACTCTGT 2154 1919 UGUGCCAA A UGGGUUC 453 GAAACCCA GGCTAGCTACAACGA TTTGGCACA 2155<	1858	UUUGCAUA G CUUCCAAU	439	ATTGGAAG GGCTAGCTACAACGA TATGCAAA 2141
1876 AAGUUGGG A CUGUGGGA 442 TCCCACAG GGCTAGCTACAACGA CCCAACTT 2144 1879 UUGGGACU G UGGGAAGA 443 TCTTCCCA GGCTAGCTACAACGA AGTCCCAA 2145 1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA TTCTTCC 2146 1891 GAAGAAC A UAAGCUUU 445 AAAGCTTA GGCTAGCTACAACGA GTTCTTC 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148 1901 AAGCUUU A UAUCACAG 447 CTGTGATA GGCTACAACGA AAAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGU 449 CACATCTG GGCTAGCTACAACGA ATAAAAGC 2151 1910 UAUCACAGA A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAUG UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ACATCTGT 2154 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGUUUC 453 GAAACCCA GGCTAGCTACAACGA CCATTTGG 2155	1865	AGCUUCCA A UAAAGUUG	440	CAACTTTA GGCTAGCTACAACGA TGGAAGCT 2142
1879 UUGGGACU G UGGGAAGA 443 TCTTCCCA GGCTAGCTACAACGA AGTCCCAA 2145 1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA TTCTTCCC 2146 1891 GAAGAAAC A UAAGCUUU 445 AAAGCTTA GGCTAGCTACAACGA GTTTCTTC 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148 1901 AAGCUUUU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA AAAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA GATATAAA 2151 1910 UAUCACAG A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA ATCTGTGA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUCA UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA ATGAAACC 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA ATTTTTCCA 2160 1947 GAAAAAAU G CCGACGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA ATTTTTTC 2161 1954 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGAG GGCTAGCAACGA ATTTTAGC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGAG GGCTAGCTACAACGA ATTTCAGGTC 2164	1870	CCAAUAAA G UUGGGACU	441	AGTCCCAA GGCTAGCTACAACGA TTTATTGG 2143
1889 GGGAAGAA A CAUAAGCU 444 AGCTTATG GGCTAGCTACAACGA TTCTTCCC 2146 1891 GAAGAAAC A UAAGCUUU 445 AAAGCTTA GGCTAGCTACAACGA GTTTCTTC 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148 1901 AAGCUUUU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA AAAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA GATATAAA 2151 1910 UAUCACAGA A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTG 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACTCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCAACGA ATGAACCA 2157	1876	AAGUUGGG A CUGUGGGA	442	TCCCACAG GGCTAGCTACAACGA CCCAACTT 2144
1891 GAAGAAAC A UAAGCUUU 445 AAAGCTTA GGCTAGCTACAACGA GTTTCTC 2147 1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148 1901 AAGCUUUU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA AAAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA ATAAAAGC 2151 1910 UAUCACAG A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACTCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA ACATCTGT 2154 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA CCATTTGG 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA ATGAAACC 2159 1945 UGGAAAAAA UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA ATTTTTCCA 2160 1947 GAAAAAAA GCCGACGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTCC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA ATTCAGGTC 2164	1879	UUGGGACU G UGGGAAGA	443	TCTTCCCA GGCTAGCTACAACGA AGTCCCAA 2145
1895 AAACAUAA G CUUUUAUA 446 TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148 1901 AAGCUUUU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA AAAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA GATATAAA 2151 1910 UAUCACAG A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACTCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGCTTTCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA ATTTCAGGTC 2164	1889	GGGAAGAA A CAUAAGCU	444	AGCTTATG GGCTAGCTACAACGA TTCTTCCC 2146
1901 AAGCUUUU A UAUCACAG 447 CTGTGATA GGCTAGCTACAACGA AAAAGCTT 2149 1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA ATAAAAGC 2151 1910 UAUCACAG A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTCC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CTCTCCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2166	1891	GAAGAAAC A UAAGCUUU	445	AAAGCTTA GGCTAGCTACAACGA GTTTCTTC 2147
1903 GCUUUUAU A UCACAGAU 448 ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150 1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA GATATAAA 2151 1910 UAUCACAG A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA CCATTTGG 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA ATTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTCC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164	1895	AAACAUAA G CUUUUAUA	446	TATAAAAG GGCTAGCTACAACGA TTATGTTT 2148
1906 UUUAUAUC A CAGAUGUG 449 CACATCTG GGCTAGCTACAACGA GATATAAA 2151 1910 UAUCACAG A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164	1901	AAGCUUUU A UAUCACAG	447	CTGTGATA GGCTAGCTACAACGA AAAAGCTT 2149
1910 UAUCACAG A UGUGCCAA 450 TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152 1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164	1903	GCUUUUAU A UCACAGAU	448	ATCTGTGA GGCTAGCTACAACGA ATAAAAGC 2150
1912 UCACAGAU G UGCCAAAU 451 ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153 1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164	1906	UUUAUAUC A CAGAUGUG	449	CACATCTG GGCTAGCTACAACGA GATATAAA 2151
1914 ACAGAUGU G CCAAAUGG 452 CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154 1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164	1910	UAUCACAG A UGUGCCAA	450	TTGGCACA GGCTAGCTACAACGA CTGTGATA 2152
1919 UGUGCCAA A UGGGUUUC 453 GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155 1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164	1912	UCACAGAU G UGCCAAAU	451	ATTTGGCA GGCTAGCTACAACGA ATCTGTGA 2153
1923 CCAAAUGG G UUUCAUGU 454 ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156 1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164	1914	ACAGAUGU G CCAAAUGG	452	CCATTTGG GGCTAGCTACAACGA ACATCTGT 2154
1928 UGGGUUUC A UGUUAACU 455 AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157 1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG	1919	UGUGCCAA A UGGGUUUC	453	GAAACCCA GGCTAGCTACAACGA TTGGCACA 2155
1930 GGUUUCAU G UUAACUUG 456 CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158 1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG	1923	CCAAAUGG G UUUCAUGU	454	ACATGAAA GGCTAGCTACAACGA CCATTTGG 2156
1934 UCAUGUUA A CUUGGAAA 457 TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159 1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG	1928	UGGGUUUC A UGUUAACU	455	AGTTAACA GGCTAGCTACAACGA GAAACCCA 2157
1945 UGGAAAAA A UGCCGACG 458 CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160 1947 GAAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2165	1930	GGUUUCAU G UUAACUUG	456	CAAGTTAA GGCTAGCTACAACGA ATGAAACC 2158
1947 GAAAAAU G CCGACGGA 459 TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161 1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2165	1934	UCAUGUUA A CUUGGAAA	457	TTTCCAAG GGCTAGCTACAACGA TAACATGA 2159
1951 AAAUGCCG A CGGAAGGA 460 TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162 1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2165	1945	UGGAAAAA A UGCCGACG	458	CGTCGGCA GGCTAGCTACAACGA TTTTTCCA 2160
1964 AGGAGAGG A CCUGAAAC 461 GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163 1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2165	1947	GAAAAAAU G CCGACGGA	459	TCCGTCGG GGCTAGCTACAACGA ATTTTTC 2161
1971 GACCUGAA A CUGUCUUG 462 CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164 1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2165	1951	AAAUGCCG A CGGAAGGA	460	TCCTTCCG GGCTAGCTACAACGA CGGCATTT 2162
1974 CUGAAACU G UCUUGCAC 463 GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2165	1964	AGGAGAGG A CCUGAAAC	461	GTTTCAGG GGCTAGCTACAACGA CCTCTCCT 2163
	1971	GACCUGAA A CUGUCUUG	462	CAAGACAG GGCTAGCTACAACGA TTCAGGTC 2164
1979 ACUGUCUU G CACAGUUA 464 TAACTGTG GGCTAGCTACAACGA AAGACAGT 2166	1974	CUGAAACU G UCUUGCAC	463	GTGCAAGA GGCTAGCTACAACGA AGTTTCAG 2165
	1979	ACUGUCUU G CACAGUUA	464	TAACTGTG GGCTAGCTACAACGA AAGACAGT 2166

1001	HOLICITION & CONTRACT	165	COMPAN COM COCCON COMPACTOR COMPANY	
1981	UGUCUUGC A CAGUUAAC	465	GTTAACTG GGCTAGCTACAACGA GCAAGACA	
1984	CUUGCACA G UUAACAAG	466	CTTGTTAA GGCTAGCTACAACGA TGTGCAAG	
1992	CACAGUUA A CAAGUUCU	467	AGAACTTG GGCTAGCTACAACGA TAACTGTG	
1992	GUUAACAA G UUCUUAUA	468	TATAAGAA GGCTAGCTACAACGA TTGTTAAC	2170
2000	AAGUUCUU A UACAGAGA	469	TCTCTGTA GGCTAGCTACAACGA AAGAACTT	2171
	GUUCUUAU A CAGAGACG	470	CGTCTCTG GGCTAGCTACAACGA ATAAGAAC	
2006	AUACAGAG A CGUUACUU	471	AAGTAACG GGCTAGCTACAACGA CTCTGTAT	2173
2008	ACAGAGAC G UUACUUGG	472	CCAAGTAA GGCTAGCTACAACGA GTCTCTGT	2174
2011	GAGACGUU A CUUGGAUU	473	AATCCAAG GGCTAGCTACAACGA AACGTCTC	2175
2017	UUACUUGG A UUUUACUG	474	CAGTAAAA GGCTAGCTACAACGA CCAAGTAA	2176
2022	UGGAUUUU A CUGCGGAC	475	GTCCGCAG GGCTAGCTACAACGA AAAATCCA	2177
2029	AUUUUACU G CGGACAGU	476	ACTGTCCG GGCTAGCTACAACGA AGTAAAAT	2178
2032	UACUGCGG A CAGUUAAU	477	ATTAACTG GGCTAGCTACAACGA CCGCAGTA	2179
	UGCGGACA G UUAAUAAC	478	GTTATTAA GGCTAGCTACAACGA TGTCCGCA	2180
2036	GACAGUUA A UAACAGAA	479	TTCTGTTA GGCTAGCTACAACGA TAACTGTC	2181
2039	AGUUAAUA A CAGAACAA	480	TTGTTCTG GGCTAGCTACAACGA TATTAACT	2182
2044	AUAACAGA A CAAUGCAC	481	GTGCATTG GGCTAGCTACAACGA TCTGTTAT	2183
2047	ACAGAACA A UGCACUAC	482	GTAGTGCA GGCTAGCTACAACGA TGTTCTGT	2184
2049	AGAACAAU G CACUACAG	483	CTGTAGTG GGCTAGCTACAACGA ATTGTTCT	2185
2051	AACAAUGC A CUACAGUA	484	TACTGTAG GGCTAGCTACAACGA GCATTGTT	2186
2054	AAUGCACU A CAGUAUUA	485	TAATACTG GGCTAGCTACAACGA AGTGCATT	2187
2057	GCACUACA G UAUUAGCA	486	TGCTAATA GGCTAGCTACAACGA TGTAGTGC	2188
2059	ACUACAGU A UUAGCAAG	487	CTTGCTAA GGCTAGCTACAACGA ACTGTAGT	2189
2063	CAGUAUUA G CAAGCAAA	488	TTTGCTTG GGCTAGCTACAACGA TAATACTG	2190
2067	AUUAGCAA G CAAAAAU	489	ATTTTTG GGCTAGCTACAACGA TTGCTAAT	2191
2074	AGCAAAAA A UGGCCAUC	490	GATGGCCA GGCTAGCTACAACGA TTTTTGCT	2192
2077	AAAAAUG G CCAUCACU	491	AGTGATGG GGCTAGCTACAACGA CATTTTT	2193
2080	AAAUGGCC A UCACUAAG	492	CTTAGTGA GGCTAGCTACAACGA GGCCATTT	2194
2083	UGGCCAUC A CUAAGGAG	493	CTCCTTAG GGCTAGCTACAACGA GATGGCCA	2195
2091	ACUAAGGA G CACUCCAU	494	ATGGAGTG GGCTAGCTACAACGA TCCTTAGT	2196
2093	UAAGGAGC A CUCCAUCA	495	TGATGGAG GGCTAGCTACAACGA GCTCCTTA	2197
2098	AGCACUCC A UCACUCUU	496	AAGAGTGA GGCTACCTACAACGA GGAGTGCT	2198
2101	ACUCCAUC A CUCUUAAU	497	ATTAAGAG GGCTAGCTACAACGA GATGGAGT	2199
2108	CACUCUUA A UCUUACCA	498	TGGTAAGA GGCTAGCTACAACGA TAAGAGTG	2200
2113	UUAAUCUU A CCAUCAUG	499	CATGATGG GGCTAGCTACAACGA AAGATTAA	2201
2116	AUCUUACC A UCAUGAAU	500	ATTCATGA GGCTAGCTACAACGA GGTAAGAT	2202
2119	UUACCAUC A UGAAUGUU	501	AACATTCA GGCTAGCTACAACGA GATGGTAA	2203
2123	CAUCAUGA A UGUUUCCC	502	GGGAAACA GGCTAGCTACAACGA TCATGATG	2204
2125	UCAUGAAU G UUUCCCUG	503	CAGGGAAA GGCTAGCTACAACGA ATTCATGA	2205
2133	GUUUCCCU G CAAGAUUC	504	GAATCTTG GGCTAGCTACAACGA AGGGAAAC	2206
2138	CCUGCAAG A UUCAGGCA	505	TGCCTGAA GGCTAGCTACAACGA CTTGCAGG	2207
2144	AGAUUCAG G CACCUAUG	506	CATAGGTG GGCTAGCTACAACGA CTGAATCT	2208
2146	AUUCAGGC A CCUAUGCC	507	GGCATAGG GGCTAGCTACAACGA GCCTGAAT	2209
2150	AGGCACCU A UGCCUGCA	508	TGCAGGCA GGCTAGCTACAACGA AGGTGCCT	2210
2152	GCACCUAU G CCUGCAGA	509	TCTGCAGG GGCTAGCTACAACGA ATAGGTGC	2211
2156	CUAUGCCU G CAGAGCCA	510	TGGCTCTG GGCTAGCTACAACGA AGGCATAG	2212
2161	CCUGCAGA G CCAGGAAU	511	ATTCCTGG GGCTAGCTACAACGA TCTGCAGG	2213
2168	AGCCAGGA A UGUAUACA	512	TGTATACA GGCTAGCTACAACGA TCCTGGCT	2214
2170	CCAGGAAU G UAUACACA	513	TGTGTATA GGCTAGCTACAACGA ATTCCTGG	2215
2172	AGGAAUGU A UACACAGG	514	CCTGTGTA GGCTAGCTACAACGA ACATTCCT	2216
2174	GAAUGUAU A CACAGGGG	515	CCCCTGTG GGCTAGCTACAACGA ATACATTC	2217
2176	AUGUAUAC A CAGGGGAA	516	TTCCCCTG GGCTAGCTACAACGA GTATACAT	2218

2188 GGSAAGAA A UCCUCCAG 517 CTGGAGGA GGTTAGCTACAAGGA TTCTTTCT 2219 2209 AAGANAGAA A UUACAAUC 518 GATTGTTAA GGCTAGCTACACAGA TTCTTTCT 2221 2219 AAGANAGAA UACAGAGAU 520 ATCTCTGA GGCTAGCTACAACGA ATCTTCTTT 2221 2219 AAGCAGGA CACCAUAC 521 CTTCCTGA GGCTAGCTACAACGA TCTTATT 2222 22210 AACAGGAA G CACCAUAC 522 GTATGGG GGCTAGCTACAACGA TCTCTGAT 2224 2222 CAGGARGC A CACCAUAC 522 GTATGGG GGCTAGCTACAACGA TCTCTGAT 2224 2223 GARGCACC A UACCUCCU 524 AGGAGGTA GGCTACACACGA GCTTCTT 2224 2224 AGCACCAU A CCUCCUC 524 AGGAGGTA GGCTAGCTACAACGA GCTTCTT 2225 2224 AGCACCAU A CCUCCUC 525 GCAGGAGG GGCTAGCTACAACGA GAGAGGTA CACCAUAC 526 AGGTTTC GGCTAGCTACAACGA AGGAGGTA 2227 22241 AGCACCAU A CCUCCUG 525 GCAGGAGG GGCTAGCTACAACGA AGGAGGTA 2227 22242 AACCUCA C UGAUACCU 526 AGGTTTC GGCTAGCACACAA AGGAGGTA 2228 22243 AGCACCAU A CCUCCUG 526 AGGTTTC GGCTAGCACACAA AGGAGGTA 2228 22244 CUCUCCUG C GAAACCU 526 AGGTTTC GGCTAGCACACAA AGGAGGTA 2228 22252 AAACCUCA C UGANACCU 526 AGGTTTC GGCTAGCACACACA TCTGCAGG 2229 22525 CCUCAGUG A UCCACACA 529 CTTGTTCA GGCTAGCTACAACGA ATCTGCAG 2231 2266 CAGUACAC C CAGUGGG 530 CCACTGTG GGCTAGCTACAACGA CACTGAGG 2231 2267 AUCACACA C UGGCCAUC 532 GATGGCA GGCTAGCTACAACGA CACTGAGG 2231 2268 CAGUGACA C CAGUGGC 533 GCGATGG GGCTAGCACACAC AGCACTG 2234 2266 CAGUGACA C CAGUGGC 534 CTGGTCA GGCTAGCACACACA CACTGATC 2234 2274 GCCAUCAG C UCCACCA 535 TGGATGG GGCTAGCACACACA CACTGATC 2234 2275 GCCCAUCA C UCCACCA 536 TGGTCAG GGCTAGCACACACA TCATCTC 2237 2276 CAUCAGCA C UCCACCA 536 TGGTCAG GGCTAGCACACACA TCATCGAC 2237 2277 GCCCAUCA C UCCACCA 536 TGGTCAG GGCTAGCACACA TCATCACAC 2237 2278 GCCCAUCA C UCCACCA 536 TGGTCAG GGCTAGCACACACA TCATCAGC 2237 2279 ACCUUGA A UCCACCA 536 TGGTCAG GGCTAGCACACA TCATCAGC 2237 2291 CAUCAGCA C UCUAGAC 537 TAAAGTG GGCTAGCACACA TCATAAGT 2234 2292 ACCUUGA A UCCACCA 536 TGGTCAG GGCTAGCACACA ATCACACA 2237					
2209 AAGANAUU A CANUCAGA 519 TCTGATTG GGCTAGCTACAAGA AATTCTT 2221 2212 AAAUUACA A UCAGAGAM 520 ATCTCTGA GGCTAGCTACAACGA TGTAATTT 2222 2219 ANACGAGA A UCAGAGAM 521 CTTCTGA GGCTAGCTACAACGA TGTAATTT 2222 2221 ANACGAGA A CCACAUAC 521 GTATGGTG GGCTAGCTACAACGA TCTCTGATT 2224 2222 CAGGAGAG C CCAUACCU 523 AGGAGGTA GGCTACACACAC TCTCTGATT 2224 2223 CAGGAGAG C CACAUACCU 524 AGGAGGTA GGCTACACACAC TCTCTGATT 2225 2234 AGCACCAU A CCUCCUG 524 AGGAGGTA GGCTACACACAC ATTGCTGAT 2225 2234 AGCACCAU A CCUCCUG 525 GCAGGAGG GGCTAGCTACAACGA ATGGTGCTT 2226 2241 UACCUCCU G COAAACCU 526 AGGTTTG GGCTAGCTACAACGA ATGGTGCT 2227 2246 CCUGCGAA C CUCAGUG 527 CACTGAG GGCTAGCTACAACGA AGGAGGTA 2228 2245 CCUCAGGA A CCUCAGUG 527 CACTGAG GGCTAGCTACAACGA AGGAGGTA 2229 2255 CCUCAGGGA LOCACACU 528 TGTGATCA GGCTAGCTACAACGA AGGAGGTA 2229 2255 CCUCAGGGA LOCACACG 529 CTTGTGTAG GGCTAGCTACAACGA AGCAGGAG 2229 2256 GUGAUCAC A CACAGUGG 530 CCACTGTG GGCTAGCTACAACGA ACACTGAG 2232 2263 AUCACACAG UGGCCC 531 GGCCACTGT GGCTAGCTACAACGA ACACTGAG 2234 2266 GUGAUCAC A CAGGUGGC 531 GGCCACTG GGCTAGCTACAACGA GATCACTG 2234 2266 ACCAGGUG G CCAUCAGC 532 GATGGCCAC GGCTAGCTACAACGA CACTGTGT 2234 2266 ACCACGUG G CCAUCAGC 533 GCTGATGG GGCTAGCTACAACGA CACTGTT 2234 2267 AGCAGGAGU G CAUCAGC 533 GCTGATGG GGCTAGCTACAACGA CACTGTT 2235 2266 CAUCAGCA G UUCCACCA 536 TGGGACTG GGCTAGCTACAACGA CACTGTT 2235 2267 CAUCAGCA G UUCCACCA 536 TGGGACTG GGCTAGCTACAACGA CACTGTT 2235 2276 CAUCAGCA G UUCCACCA 536 TGGGAGG GGCTAGCTACAACGA CACTGTT 2235 2281 GCGAUUCA G CACUUUA 537 AAAGAGGG GGCTAGCACACACA CACTGTT 2236 2281 GCGAGUUCC A CACCUUUA 537 AAAGAGGG GGCTAGCACACACA CACAGGACTC 2239 2284 UUCAGACCA G UUCCACCA 536 TGGGAGG GGCTAGCACACACA GGAACTCC 2239 2291 CACUUUAG C UUCCACCA 536 TGGGAGG GGCTAGCACACACA CACACACACA CACACACACACA CACACACACA CACACACACACA CACACACACA CACA	2188	GGGAAGAA A UCCUCCAG	517	CTGGAGGA GGCTAGCTACAACGA TTCTTCCC	2219
2212 AAAUUACA A UCAGAGAU 520 ATCTCTGA GGCTAGCTACAGGA TGTAATTT 2222 2217 AVACAGAGA E CACCAUAC 521 CTTCCTGA GGCTAGCTACAGGA CTCTGATT 2224 2227 AVACAGAGA E CACCAUAC 522 GATAGGTAGCTACAGGA TTCCTGAT 2224 2222 CAGGAAGC A CACUACCU 524 AGGAGTAGCTACAACGA GTTCTCTG 2225 2234 AGCACCAU A CCUCCUG 525 GCAGGAGG GGCTAGCTACAACGA ATGGTCTC 2225 2241 MCCUCCUG G GGAAACCU 526 AGGTTTGG GGCTAGCTACAACGA ATGGTTCCAAGG 2227 2246 CCUGCGGA A CCUCAGUG 527 CACTGAGG GGCTAGCTACAACGA ATGGGTTC 2229 2255 AAACCUCA G UGAUACAC 528 TGTGATCA GGCTAGCTACAACGA ATGAGTT 2222 2255 CAGUAGAG 529 CTTGTTGTG GGCTAGCTACAACGA TTGCTGAGG 2221 2256 CAGUAGAC 528 TGTGATGCTACAACGA TTGCTGAGG 2223 2260 GUGALUCAC A CAGUGGC 531 GGCCALCTGG GGCTAGCTACAACGA TTGTTGTAC 2236 2266 ACACAGUGG C AUCAGC 533 GTGATGG GGCTAGCTACAACGA TTGTGATC	2206	AGAAAGAA A UUACAAUC	518	GATTGTAA GGCTAGCTACAACGA TTCTTTCT	2220
2219	2209	AAGAAAUU A CAAUCAGA	519	TCTGATTG GGCTAGCTACAACGA AATTTCTT	2221
2227	2212	AAAUUACA A UCAGAGAU	520	ATCTCTGA GGCTAGCTACAACGA TGTAATTT	2222
2229	2219	AAUCAGAG A UCAGGAAG	521	CTTCCTGA GGCTAGCTACAACGA CTCTGATT	2223
2232 GARGCACC A UACCUCCU 524 AGGAGGAG GGCTAGCTACACAG GGTGCTC 2226 2234 AGCACCAU A CCUCCUGC 525 GCAGGAG GGCTAGCTACACAGA ATGGTGCT 2227 2241 LUACCUCCU G GAAAACU 526 AGGTTTCG GGCTAGCTACACAGA ATGGTGTA 2228 2246 CCUGGGAA A CCUCAGUG 527 CACTGAGG GGCTAGCTACAACAGA TAGGGTT 2239 2255 CACLCAGUG A UGACACAG 528 TGTGTTGTA GGCTAGCTACAACGA CACTGAGG 2231 2258 CAGUGGAC A CACAGUGG 529 CTGTGTGTGAGCTACAACGA GATCACTC 2232 2260 GYBAUCAC A CAGUGGC 531 GGCCACTG GGCTAGCTACAACGA GATCGTGT 2232 2263 AUCACACA G UGGCCAUC 532 GATGGCCA GGCTAGCTACAACGA CACTGGTT 2234 2266 CAGUGGC A UCAGCAGU 533 GCTGATGCTACAACGA GACTGTGT 2236 2273 GGCCAUCA G CAGUUCCA 535 TGGTGTAG GGCTAGCTACAACGA CACTGGC 2237 2274 GAUCAGCA G UCACCACC 535 TGGTGAAA GGCTAGCTACAACGA TAGCTACACGA 2237 2284 GUUCACCA 536 TGGTGAAA GGCTAGCTACAACGA	2227	AUCAGGAA G CACCAUAC	522	GTATGGTG GGCTAGCTACAACGA TTCCTGAT	2224
2234 AGCACCAU A CCUCCUGC 525 GCAGGAGG GCTAGCTACAACGA ATGGTGCT 2227 2241 UACCUCCU G CGAAACU 526 AGGTTTCG GGCTAGCTACAACGA ATGGAGGTA 2228 2246 CCUGGGAA A CCUCAGUG 527 CACTGAGG GCTAGCTACAACGA TGGAGG 2229 2252 AAACCUCA G UGAUCACA 528 TGTGATCA GGCTAGCTACAACGA CATGGAG 2230 2255 CAGUGAUC A CACAGUGG 529 CTTGTGTGA GGCTAGCTACAACGA CAGGAGTACACGA 2212 2260 GUGAUCAC A CACAGUGG 531 GGCCACTG GGCTAGCTACAACGA GTGATCAC 2233 2263 AUCACACA G UGGCCAUC 532 GATGGCCA GGCTAGCTACAACGA TGTGTTCA 2233 2266 ACACAGUGG 533 GCTGATGGTACAACGA CACAGTGTC 2236 2269 CAGUGGCC A UCAGCAGU 534 ACTGCTG GGCTAGCTACAACGA TGTGTTCA 2236 2273 GGCCAUCA G CAGUUCCA 535 TGGAACTG GGCTAGCTACAACGA TGTAGTCACCA 2236 2274 CAUCAGAC A UCACAACA 536 TGGATGATGAACGA TGATACACCA 2247 2281 GCACUCAC A CACUUUA 537 TAAAGTGG GCTAGCTACAACGA GAGTACACCA 2249	2229	CAGGAAGC A CCAUACCU	523	AGGTATGG GGCTAGCTACAACGA GCTTCCTG	2225
2241 UACCUCCU G CGARACCU 526 AGGTTTCG GGCTAGCTACAACGA AGGAGGTA 2228 2246 CCUGGGAA A CCUCAGUG 527 CACTGAGG GGCTAGCTACAACGA TACGAGG 222 2252 AAACCUCA G UGAUCACA 528 TGGGATCA GGCTAGCTACAACGA TGAGGTTT 223 2255 CCUCAGUG A UCACACAG 529 CTGTGTAG GGCTAGCTACAACGA CACTGAGG 223 2256 CGUGAUCA C ACAGGUGGC 531 GGCCACTG GGCTAGCTACAACGA GTGTCACT 2232 2263 AUCACACA G UGGCCAUC 532 GATGGCG GGCTAGCTACAACGA GTGTTCAT 2234 2266 ACACAGUG G CAGUCAGC 533 GCTGATGG GGCTACAACGA CTGTTCAT 2234 2266 ACACAGUG G CAGUUCA 534 ACTGCTGG GGCTACAACGA GGCCATCT 2236 2269 CAGUGGC G CAGUUCA 535 TGGTGAAA GGCTACAACGA CACGA CTGTAGCCA 2236 2273 GGCCAUCA G CAGUUUA 537 TAAAGTG GGCTACAACGA TGCTACAACGA TGCTAGACCA 2236 2281 GCAGUUCA C A CCACUUUA 537 TAAAGTG GGCTACAACGA TGCTACAACGA TGCTAGACCA 2236 2284 GUUCACC A CUUUAGAC 538 GTCTAAAGA GGCTACAACGA GTCTACAACGA CTAAAGACA </td <td>2232</td> <td>GAAGCACC A UACCUCCU</td> <td>524</td> <td>AGGAGGTA GGCTAGCTACAACGA GGTGCTTC</td> <td>2226</td>	2232	GAAGCACC A UACCUCCU	524	AGGAGGTA GGCTAGCTACAACGA GGTGCTTC	2226
2246 CCUGGGAA A CCUCAGUG 527 CACTGAGG GGCTAGCTACAACGA TTCGCAG 2229 2252 AAACCUCA G UGAUCACA 528 TGTGATCA GGCTAGCTACAACGA TCGAGGG 2231 2255 CCUCAGUG A UCACACAG 529 CTGTGTGA GGCTAGCTACAACGA CACTGAGG 2231 2260 GUGAUCAC A CAGUGGC 531 GGCACTG GGCTAGCTACAACGA GGTAGCTACAACGA GGTAGCTACAACGA GGTAGCTACAACGA GTGGTAGT 2232 2263 AUCACACA G UGGCCAUC 532 GATGGCCA GGCTACAACGA CACTGTGT 2234 2266 ACACAGUG CCAUUCAGC 533 GCTGATGG GGCTAGCTACAACGA CACTGTGT 2236 2269 CAGUGCCA CAGUUCCA 535 TGGAGACT GGCTAGCTACAACGA GTGATGT 2236 2273 GGCAUCA CACCUUUA 537 TAAAGTG GGCTAGCTACAACGA GGAGACCA CUUUAGACC 356 GTTGAAAG GGCTAGCTACAACGA GGAGACCA 2241 2291 CACUUUAGA 600 GGCTAGCTACAACGA ACACAGCA <td< td=""><td>2234</td><td>AGCACCAU A CCUCCUGC</td><td>525</td><td>GCAGGAGG GGCTAGCTACAACGA ATGGTGCT</td><td>2227</td></td<>	2234	AGCACCAU A CCUCCUGC	525	GCAGGAGG GGCTAGCTACAACGA ATGGTGCT	2227
2252 AAACCUCA G UGAUCACA 528 TGTGATCA GGCTAGCTACAGA TGAGGTT 2230 2255 CCUCAGUG A UCACACAG 529 CTGTGTGA GGCTAGCTACAAGA CACTGAGG 2231 2258 CAGUGAUC A CACAGUGG 530 CCACTGTG GGCTAGCTACAAGA GATCATCA 2232 2260 GUGAUCAC A CAGUGGC 531 GGCCACTG GGCTAGCTACAAGA TGTGTGAT 2233 2263 AUCACACA G UGGCCAUC 532 GATGGCA GGCTAGCTACAACGA CACTGTGT 2235 2266 CAGUGGC A UCAGCC 533 GCTGATGG GGCTAGCTACAACGA CACTGTGT 2235 2267 CAUGACAG G CAGUUCCA 535 TGGAACTG GGCTAGCTACAACGA TGATGCC 2235 2273 GGCCAUCA G CAGUUCCA 535 TGGTGATG GGCTAGCTACAACGA TGTGTGCC 2236 2284 GUUCCACC A CACUUUA 537 TAAAGTGG GGCTAGCTACAACGA GTGTGAAC 2238 2284 GUUCACC A CUUUAGAC 538 GTCTAAAG GGCTAGCTACAACGA GTAAAGTA 2240 2294 CUUUAGACU G UCAUGCUA 540 TAGACATG GGCTAGCTACAACGA CTAAAGTA 2241 2297 AGACUCUA UCACAGA 541 CATTAGCA GGCTAGCTACAACGA CTAAAGTA 2242 </td <td>2241</td> <td>UACCUCCU G CGAAACCU</td> <td>526</td> <td>AGGTTTCG GGCTAGCTACAACGA AGGAGGTA</td> <td>2228</td>	2241	UACCUCCU G CGAAACCU	526	AGGTTTCG GGCTAGCTACAACGA AGGAGGTA	2228
2255 CCUCAGUG A UCACACAG 529 CTGTGTGA GGCTAGCTACAACGA CACTGAGG 2231 2258 CAGUGAUC A CACAGUGG 530 CCACTGTG GGCTAGCTACAACGA GATCACTC 2232 2260 GUGAUCAC A CAGUGGCC 531 GGCCACTG GGCTAGCTACAACGA GTGATCA 2233 2263 AUCACACAC & UGGCCAUC 532 GATGGCA GGCTAGCTACAACGA GTGATCA 2234 2266 ACACAGUG G CAGUCAGGU 533 GCTGATGA GGCTAGCTACAACGA GACTGTGT 2236 2267 CAGUGCC A UCACACA 534 ACTGCTGA GGCTAGCTACAACGA TGCTGTG 2236 2273 GGCCAUCA G CAGUUCA 535 TGGAACTG GGCTAGCTACAACGA TGCTGTG 2236 2281 GCAGUUCC A CACUUUA 537 TAAAGTG GGCTAGCTACAACGA TGCTGTG 2238 2284 GUUCACC A CACUUUA 537 TAAAGTG GGCTAGCTACAACGA TGCTACAACGA C240 2291 CACUUUAG A CUUUAGCA 538 CATGACAG GGCTAGCTACAACGA CTAAAGTG 2241 2291 CACUUAG U UCACACA 540 TAGCATGA GGCTAGCTACAACGA ATGCTACAA 2241 2297 AGACUUA U GUCAAUGG 541 CATTAGCA GGCTAGCTACAACGA ATGCTACAA 2243 2298<	2246	CCUGCGAA A CCUCAGUG	527	CACTGAGG GGCTAGCTACAACGA TTCGCAGG	2229
2258 CAGUGAUC A CACAGUGG 530 CCACTGTG GGCTAGCTACAACGA GATCACTG 2232 2260 GUGALOAC A CAGUGGCC 531 GGCCACTG GGCTAGCTACAACGA GTGATCAC 2233 2263 AUCACACA G UGGCCAUC 532 GATGGCCA GGCTAGCTACAACGA TGTGTGAT 2234 2266 ACACAGUG G CADUCAG 533 GGTGATGG GGCTAGCTACAACGA GACTGTGT 2235 2269 CAGUGGCA UCAGCAG 534 ACTGCTGA GGCTAGCTACAACGA GACTGTGT 2236 2273 GGCCAUCA G CAGUUCCA 535 TGGAGCAG GGCTAGCTACAACGA TGATGGC 2237 2276 CAUCAGCA G UUCCACCA 536 TGGTGGAA GGCTAGCTACAACGA TGATGCA 2237 2281 GCAGUUCC A CCACUUUA 537 TAAAGTGG GGCTAGCTACAACGA TGATGCA 2239 2284 GUUCACAC A CUULAGAG 538 GTCTAAAA GGCTAGCTACAACGA AGTCTAAA 2242 2294 UUUAGACU G UCAUGUG 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2242 2297 AGCUGUCAU G CUAAUGGU 541 CACATTAG GGCTAGCTACAACGA ATGACAT 2244 2203 UUCAUGAU G CUAAUGGU 542 ACCATTAG GGCTAGCTACAACGA	2252	AAACCUCA G UGAUCACA	528	TGTGATCA GGCTAGCTACAACGA TGAGGTTT	2230
2260 GUGAUCAC A CAGUGGCC 531 GGCCACTG GGCTAGCTACAACGA GTGATCAC 2233 2263 AUCACACA G UGGCCAUC 532 GATGGCCA GGCTAGCTTACAACGA TGTTGTGAT 2235 2266 ACACAGUG G CCAUCAGC 533 GCTGATGG GGCTAGCTACAACGA CACTGTGT 2235 2269 CAGUGGC A UCAGCAGU 534 ACTGTGA GGCTAGCTACAACGA TGATGGCC 2236 2273 GGCCAUCA G CAGUUCCA 535 TGGTGATG GGCTAGCTACAACGA TGATGGCC 2237 2276 CAUCAGCA G UUCCACCA 536 TGGTGAACT GGCTAGCTACAACGA GGAACTGC 2239 2284 GUUCCACCA C CUUUAGAC 538 GTCTAAAG GGCTAGCTACAACGA GGTAAGTTACAACGA 2240 2291 CACUUUAGA 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2241 2294 UULAGACU G UCAUGUUA 541 CATTACCA GGCTAGCTACAACGA AGCATTAAA 2242 2299 ACUGUCAU G CUUAUAUG 541 CATTACCA GGCTAGCTACAACGA ACCATTAG 2244 2303 UCAUGUUA G CUUAUAUG 542 ACCATTAG GGCTAGCTACAACGA TAGCATA 2244 2304 UCAUGUAG G UGUCCCAG 543 G	2255	CCUCAGUG A UCACACAG	529	CTGTGTGA GGCTAGCTACAACGA CACTGAGG	2231
2263 AUCACACA & UGGCCAUC 532 GATGGCCA GGCTAGCTACAACGA TGTGTGAT 2234 2266 ACACAGUG & CCAUCAGC 533 GCTGATGG GGCTAGCTTACAACGA CACTGTTT 2236 2269 CAGUGGCC A UCAGCAGU 534 ACTGCTGA GGCTAGCTTACAACGA GGCCACTG 2236 2273 GGCCAUCA G CAGUUCCA 535 TGGAACTG GGCTAGCTACAACGA TGATGGC 2237 2276 CAUCAGCA G UUCCACCA 536 TGGTGAGA GGCTAGCTACAACGA GGACTGC 2238 2281 GCAGUUCA A CACUUUAGAC 537 TAAAGTGG GGCTAGCTACAACGA GGAGCACCA 2240 2291 CACUUUAG A CUGUCAUG 539 CATGACAG GGCTAGCTACAACGA GGTGGACCA 2241 2294 UJUAGACU G UCAUGCUA 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2242 2297 ACCUGUCAU G UCAUAGUG 541 CATTAGCA GGCTAGCTACAACGA AGTCACATA 2243 2299 ACUGUCAU G UCAUAGUG 542 ACCATTAG GGCTAGCTACAACGA ATGCACT 2243 2299 ACUGUCAU A UGGUGU 543 GGACACCA GGCTAGCTACAACGA TAGCACT 2246 2303 UGCUCAGA G UGCCCAGA 541 CGGGGACA GGCTAGCTACAACGA ACCATTAGCACA	2258	CAGUGAUC A CACAGUGG	530	CCACTGTG GGCTAGCTACAACGA GATCACTG	2232
2266 ACACAGUG G CCAUCAGC 533 GCTGATGG GGCTAGCTACAACGA CACTGTGT 2235 2269 CAGUGGC A UCAGCAGU 534 ACTGCTGA GGCTAGCTACAACGA GGCCACT 2236 2273 GGCCAUCA G CAGUUCCA 535 TGGAGCAG GGCTAGCTACAACGA TGATGGCC 2237 2276 CAUCAGCA G UUCCACCA 536 TGGTGGAA GGCTAGCTACAACGA GGAACTG 2238 2281 GCAGUUCC A CCACUUUA 537 TAAAGTGG GGCTAGCTACAACGA GGAACTG 2239 2284 GUUCCACC A CUUUAGAC 538 GTTAAAG GGCTAGCTACAACGA GTAAGTG 2241 2294 CUUUAGA C UGUCAUG 539 CATGACAG GGCTAGCTACAACGA CTAAAGTG 2241 2297 AGACUGU G UGUCAUG 540 TACATTGA GGCTAGCTACAACGA ATGTCAAC 2243 2299 ACUGUCAU G UGUCAUG 541 CATTAGCA GGCTAGCTACAACGA ATGCACAT 2243 2299 ACUCALOU G UGUCCCC 544 CGGGGAC GGCTAGCTACAACGA ATGCACAT 2243 2203 UGUCAUG G UGUCCCCG 544 CGGGGAC GGCTAGCTACAACGA ACATTGCA 2246 2306 UGUCAGAU G UCUCAGAU 546 ATCTGAGGA GGCTAGCTACAACGA ACCATTAGCA 2247	2260	GUGAUCAC A CAGUGGCC	531	GGCCACTG GGCTAGCTACAACGA GTGATCAC	2233
2269 CAGUGGCC A UCAGCAGU 534 ACTGCTGA GGCTAGCTACAACGA GGCCACTG 2236 2273 GGCCAUCA G CAGUUCA 535 TGGAACTG GGCTAGCTACAACGA TGATGGCC 2237 2276 CAUCAGCA G UUCCACCA 536 TGGTGGAA GGCTAGCTACAACGA TGATGGCC 2238 2281 GCAGUUCC A CACUUUA 537 TAAAGTGG GGCTAGCTACAACGA GGAACTC 2239 2284 GUUCCACC A CUUUAGAC 538 GTCTAAAG GGCTAGCTACAACGA GGTGGAC 2240 2291 CACUUUAGA A CUGUCAUG 539 CATGACAG GGCTAGCTACAACGA CATAAAGTG 2241 2294 UUUAGACU G UCAUGCUA 540 TAGCATGA GGCTAGCTACAACGA CATAAAGTG 2242 2297 AGACUGUC A UGCUABUG 541 CATTAGCA GGCTAGCTACAACGA ACCATTAA 2242 2299 ACUGUCAU G CUAAUGGU 542 ACCATTAG GGCTAGCTACAACGA ACCATTAC 2245 2303 UCAUGUAU G UGUCCCCG 544 CGGGGACA GGCTAGCTACAACGA CATATACAC 2245 2304 CUAAUGGU G UGCCCGAS 545 CTCGGGAG GCTAGCTACAACGA CATATACACA 2247 2316 GUCCCCGA G CCUCAGAU 546 ATCTGAG GGCTAGCTACAACGA CATAGAGA<	2263	AUCACACA G UGGCCAUC	532	GATGGCCA GGCTAGCTACAACGA TGTGTGAT	2234
2273 GGCCAUCA G CAGUUCCA 535 TGGAACTG GGCTAGCTACAACGA TGATGGCC 2237 2276 CAUCAGCA G UUCCACCA 536 TGGTGGAA GGCTAGCTACAACGA TGCTGATG 2238 2281 GCAGUUCC A CCACUUUA 537 TAAAGTGG GGCTAGCTACAACGA GGTGGACTC 2239 2284 GUUCCACC A CUUUAGAC 538 GCTAAAGG GGCTAGCTACAACGA GGTGGACT 2240 2291 CACUUUAG A CUGUCAUG 539 CATGACAG GGCTAGCTACAACGA AGTCTAAA 2241 2294 UUUAGACU G UCAUGCUA 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2242 2297 AGACUGUC A UGCUAAUGU 541 CATTAGCA GGCTAGCTACAACGA AGTCAACTA 2244 2299 ACUAGUAU G UGCCCCG 544 CGGGGACA GGCTAGCTACAACGA ATGCATCA 2245 2306 UGCUAAUG G UGCCCCG 544 CGGGGAC GGCTAGCTACAACGA CATTAGCA 2246 2316 GUCCCGA G CCUCAGAU 546 ATCTGAGG GGCTAGCTACAACGA ACCATTAG 2247 2316 GUCACAG A UCACUUG 547 CCAAGTGA GGCTAGCTACAACGA CTGAGGCA 2249 2326 CUCAGAU A CUUGGUUU 548 AAACCAACAACAACAACAACAA 2250 <	2266	ACACAGUG G CCAUCAGC	533	GCTGATGG GGCTAGCTACAACGA CACTGTGT	2235
2276 CAUCAGCA G UUCCACCA 536 TGGTGGAA GGCTAGCTACAACGA TGCTGATG 2238 2281 GCAGUUCC A CCACUUUA 537 TAAAGTGG GGCTAGCTACAACGA GGAACTCC 2239 2284 GUUCCACC A CUUUAGAC 538 GTCTAAAG GGCTAGCTACAACGA GGAACTCC 2239 2291 CACUUUAG A CUUCAUG 539 CATGACAG GGCTAGCTACAACGA AGTCTAAAA 2241 2294 UUUAGACU G UCAAUGU 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2242 2297 AGACUGUC A UGCUAAUGU 541 CATTAGCA GGCTAGCTACAACGA AGTCTAAA 2242 2299 ACUGUCAU G CUAAUGU 542 ACCATTAG GGCTAGCTACAACGA ATGACAGT 2244 2303 UCAUGUCA G CUAAUGUU 542 ACCATTAG GGCTACCAACGA ATGACATCA 2245 2306 UGCUCAAUG G UCCCCGAG 544 CGGGGACA GGCTAGCTACAACGA ACCATTAG 2246 23308 CUAAUGUU G UCCCCGAG 545 CTCGGGGA GGCTACCACACGA TCGAGGAC 2247 2316 GUCCCCGA G CCUCAGAU 546 ATCTGAGG GGCTAGCTACAACGA CTCGAGGC 2249 2323 AGCCUCAG A UCACUUGG 547 CCAAGTAGA GCTACAACGA CTCGAGCA CCAAGTA	2269	CAGUGGCC A UCAGCAGU	534	ACTGCTGA GGCTAGCTACAACGA GGCCACTG	2236
2281 GCAGUUCC A CCACUUUA 537 TAAAGTGG GGCTAGCACACGA GGAACTGC 2239 2284 GUUCCACC A CUUUAGAC 538 GTCTAAAG GGCTAGCACACGA GGTGGAAC 2240 2291 CACUUUAGA A CUGUCAUG 539 CATGACAG GGCTAGCACACGA CTAAACGA 2241 2294 UUUAGACU G UCAUGCUA 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2242 2297 AGACUGUC A UGCUAAUG 541 CATTAGCA GGCTAGCTACAACGA AGCAGTCT 2243 2299 ACUGUCAU G CUAAUGGU 542 ACCATTAG GGCTAGCTACAACGA ATGACATCA 2244 2303 UCAUGCUA G UGUCCCCG 544 CGGGGACA GGCTAGCTACAACGA ACCATTAG 2245 2306 UGUAAUGGU G UCCCCGAG 545 CTCGGGGA GGCTAGCTACAACGA ACCATTAG 2247 2316 GUCCCCGAG CUCAGAU 546 ATCTGAGG GGCTAGCTACAACGA CATTAGC 2248 2323 AGCCUCAG A UCACUUGG 547 CCAAGTGA GGCTACAACGA CATGAGCT 2249 2226 CUCAGAU C A CUUGGUU 548 AAACCAACA GGCTACAACGA CATTAGACCA 2250 2331 AUCACUUG G UUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA TTTTAAAC	2273	GGCCAUCA G CAGUUCCA	535	TGGAACTG GGCTAGCTACAACGA TGATGGCC	2237
2284 GUUCCACC A CUUUAGAC 538 GTCTAAAG GGCTAGCAACGA GGTGGAAC 2291 CACUUUAGA A CUGUCAUG 539 CATGACAG GGCTAGCTACAACGA CTAAAGTG 2241 2294 UUUAGACU G UCAUGCUA 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2242 2297 AGACUGUC A UGCUAAUG 541 CATTAGCA GGCTAGCTACAACGA AGTCTAAA 2243 2299 ACUGUCAU G CUAAUGGU 542 ACCATTAG GGCTAGCTACAACGA ATGACAGT 2244 2303 UCAUGUA A UGGUGUCC 543 GGACACCA GGCTAGCTACAACGA ATGACAGT 2245 2306 UGCUAAUG G UGCCCCG 544 CGGGGACA GGCTAGCTACAACGA ACCATTAG 2246 2308 CUAAUGGU G UCCCGAGAU 546 ATCTGAGG GGCTAGCTACAACGA TCGAGGGAC 2247 2316 GUCCCCGA G CUCAGAU 546 ATCTGAGG GGCTAGCTACAACGA TCGAGGCT 2249 2326 CUCAGAUC A CUUGGUU 548 AAACCACA GGCTACAACGA GATCTAGA 2242 2331 AUCACUUG G UUUAAAAA 549 TTTTTAAA GGCTACAACGA CAACTAACAA 2251 2332 GUUUAAAA A CAACACA 550 TTTGGTG GGCTAGCTACAACGA TTTTAAAC 2252	2276	CAUCAGCA G UUCCACCA	536	TGGTGGAA GGCTAGCTACAACGA TGCTGATG	2238
2291 CACUUUAG A CUGUCAUG 539 CATGACAG GGCTAGCTACAACGA CTAAAGTG 2241 2294 UJUAGACU G UCAUGCUA 540 TAGCATGA GGCTAGCTACAACGA AGTCTAAA 2242 2297 AGACUGUC A UGCUAAUG 541 CATTAGCA GGCTAGCTACAACGA AGACAGT 2243 2299 ACUGUCAU G CUAAUGGU 542 ACCATTAG GGCTAGCTACAACGA ATGACAGT 2244 2303 UCAUGCUA A UGGUGUCC 543 GGACACCA GGCTAGCTACAACGA ATGACAGA 2245 2306 UGCUAAUG G UCCCCGAG 544 CGGGGACA GGCTAGCTACAACGA ACCATTAGC 2246 2308 CUAAUGGU G UCCCCGAG 545 CTCGGGGA GGCTAGCTACAACGA ACCATTAG 2247 2316 GUCCCCGA G UCCACAU 546 ATCTGAGG GGCTAGCTACAACGA ACCATAGGA 2248 2323 AGCCUCAG A UCACUUG 547 CCAAGTGA GGCTAGCTACAACGA CTAGAGGA CAAGTGAT 2324 UACACUUG G UUUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA CTAGAGA CAACACACA 2339 GUUUAAAA A CAACACAA 550 TGTGTGTG GGCTAGCTACAACGA TTTTAAAC 2252 2342 UAAAACAC A CAAAAUAC 552 GTATTTTG GGCTAGCTACAACGA TTTTTAAC	2281	GCAGUUCC A CCACUUUA	537	TAAAGTGG GGCTAGCTACAACGA GGAACTGC	2239
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2303 UCAUGCUA A UGGUGUCC 543 GGACACCA GGCTAGCTACAACGA TAGCATGA 2246 2306 UGCUAAUG G UGUCCCG 544 CGGGGACA GGCTAGCTACAACGA CATTAGCA 2246 2308 CUAAUGGU G UCCCCGAG 545 CTCGGGGA GGCTAGCTACAACGA ACCATTAG 2247 2316 GUCCCCGA G CCUCAGAU 546 ATCTGAGG GGCTAGCTACAACGA TCGGGGAC 2249 2323 AGCCUCAG A UCACUUGG 547 CCAAGTGA GGCTAGCTACAACGA CTGAGGCT 2249 2326 CUCAGAUC A CUUGGUUU 548 AAACCAGA GGCTAGCTACAACGA CAAGTGAT 2250 2331 AUCACUUG G UUUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA CAAGTGAT 2251 2339 GUUUAAAA A CAACCACA 550 TGTGGTTG GGCTAGCTACAACGA TTTTAAAC 2252 2342 UAAAAACA A CAACACAA 551 TTTTGTGG GGCTAGCTACAACGA TTTTTTA 2253 2345 AACCACAA A UACAACAA 552 GTATTTTG GGCTAGCACACGA TTTTTTTA 2254 2350 ACCACAAAA UACAACAA 553 TTGTTGTA GGCTACAACGA TTTTTTTG 2256 2351 ACACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TTTTTTTG 2256 2352 CACAAAAA CAAGAGC 555 GGCTTCTTG GGCTAGCTACAACGA TCTTTTTTG 2258 2361 CACACAGA G CCUGGAAU 556 ATTCCA	2297	AGACUGUC A UGCUAAUG	541	CATTAGCA GGCTAGCTACAACGA GACAGTCT	2243
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2308 CUAAUGGU G UCCCCGAG 545 CTCGGGGA GCTAGCTACAACGA ACCATTAG 2247 2316 GUCCCCGA G CCUCAGAU 546 ATCTGAGG GGCTAGCTACAACGA TCGGGGAC 2248 2323 AGCCUCAG A UCACUUGG 547 CCAAGTGA GGCTAGCTACAACGA CTGAGGCT 2249 2326 CUCAGAUC A CUUGGUUU 548 AAACCAAG GGCTAGCTACAACGA GATCTGAG 2250 2331 AUCACUUG G UUUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA CAAGTGAT 2251 2339 GUUUAAAA A CAACCACA 550 TGTGGTTG GGCTAGCTACAACGA TTTTAAAC 2252 2342 UAAAAACA A CCACAAAA 551 TTTTGTGG GGCTAGCTACAACGA TGTTTTTA 2253 2345 AAACAACC A CAAAAUAC 552 GTATTTTG GGCTAGCTACAACGA TTTTGTGT 2254 2350 ACCACAAA A UACAACAA 553 TTGTTTTA GGCTAGCTACAACGA ATTTTGTG 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTGTG 2256 2355 AAAUACA A CAAGAGC 555 GGCTTTTG GGCTAGCTACAACGA TCTTTTTT 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTTGTTG 22	2303	UCAUGCUA A UGGUGUCC	543	GGACACCA GGCTAGCTACAACGA TAGCATGA	2245
2316 GUCCCCGA G CCUCAGAU 546 ATCTGAGG GGCTAGCTACAACGA TCGGGGAC 2248 2323 AGCCUCAG A UCACUUGG 547 CCAAGTGA GGCTAGCTACAACGA CTGAGGCT 2249 2326 CUCAGAUC A CUUGGUUU 548 AAACCAAG GGCTAGCTACAACGA GATCTGAG 2250 2331 AUCACUUG G UUUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA CAAGTGAT 2251 2339 GUUUAAAAA A CAACCACA 550 TGTGGTTG GGCTAGCTACAACGA TTTTAAC 2252 2342 UAAAACA A CCACAAAA 551 TTTTGTG GGCTAGCTACAACGA TGTTTTTA 2253 2345 AAACAACC A CAAAAAACA 552 GTATTTTG GGCTAGCTACAACGA TTTTTTTTT 2254 2350 ACCACAAAA A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	2306	UGCUAAUG G UGUCCCCG	544	CGGGGACA GGCTAGCTACAACGA CATTAGCA	2246
2323 AGCCUCAG A UCACUUGG 547 CCAAGTGA GGCTAGCTACAACGA CTGAGGCT 2249 2326 CUCAGAUC A CUUGGUUU 548 AAACCAAG GGCTAGCTACAACGA GATCTGAG 2250 2331 AUCACUUG G UUUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA CAAGTGAT 2251 2339 GUUUAAAA A CAACCACA 550 TGTGGTTG GGCTAGCTACAACGA TTTTTAAC 2252 2342 UAAAAACA A CCACAAAA 551 TTTTTGTGG GGCTAGCTACAACGA TGTTTTA 2253 2345 AAACAACC A CAAAAUAC 552 GTATTTTG GGCTAGCTACAACGA TTTTGTGGT 2255 2350 ACCACAAA A UACAACAA 553 TTGTTGTA GGCTAGCTACAACGA TTTTGTGG 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA TTTTGTG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TCTTGTTG 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCAACGA ATTCCAG 2260 2379 AUUUUAGG A CAGCACGC 560 GCGTGCTG GGCTAGCAACGA TCCTAGAAT 2261 </td <td>2308</td> <td>CUAAUGGU G UCCCCGAG</td> <td>545</td> <td>CTCGGGGA GGCTAGCTACAACGA ACCATTAG</td> <td>2247</td>	2308	CUAAUGGU G UCCCCGAG	545	CTCGGGGA GGCTAGCTACAACGA ACCATTAG	2247
2326 CUCAGAUC A CUUGGUUU 548 AAACCAAG GGCTAGCTACAACGA GATCTGAG 2250 2331 AUCACUUG G UUUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA CAAGTGAT 2251 2339 GUUUAAAA A CAACCACA 550 TGTGGTTG GGCTAGCTACAACGA TTTTTAAC 2252 2342 UAAAAACA A CCACAAAA 551 TTTTGTGG GGCTAGCTACAACGA TGTTTTTA 2253 2345 AAACAACC A CAAAAUAC 552 GTATTTTG GGCTAGCTACAACGA GTTTTGTGGT 2254 2350 ACCACAAA A UACAACAA 553 TTGTTGTA GGCTAGCTACAACGA TTTTGTGGT 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTGTG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TCTTGTTG 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCAACGA CTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCAACGA TCCTTGCT 2262	2316	GUCCCCGA G CCUCAGAU	546	ATCTGAGG GGCTAGCTACAACGA TCGGGGAC	2248
2331 AUCACUUG G UUUAAAAA 549 TTTTTAAA GGCTAGCTACAACGA CAAGTGAT 2251 2339 GUUUAAAA A CAACCACA 550 TGTGGTTG GGCTAGCTACAACGA TTTTAAAC 2252 2342 UAAAAACA A CCACAAAA 551 TTTTGTGG GGCTAGCTACAACGA TGTTTTTA 2253 2345 AAACAACC A CAAAAUAC 552 GTATTTTG GGCTAGCTACAACGA GGTTGTTT 2254 2350 ACCACAAA A UACAACAA 553 TTGTTGTA GGCTAGCTACAACGA TTTGTGGT 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTGTG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA ATTTTGTG 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCTTGTTG 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GCTGCTTC 2264 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TCCTTCTG GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TCCTTCTG GGCTAGCTACAACGA GCCTCTT 2268 2413 AAAGAGUC A CAGAAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GCCTCTT 2269	2323	AGCCUCAG A UCACUUGG	547	CCAAGTGA GGCTAGCTACAACGA CTGAGGCT	2249
2339 GUUUAAAA A CAACCACA 550 TGTGGTTG GGCTAGCTACAACGA TTTTAAAC 2252 2342 UAAAAACA A CCACAAAA 551 TTTTGTGG GGCTAGCTACAACGA TGTTTTA 2253 2345 AAACAACC A CAAAAUAC 552 GTATTTG GGCTAGCTACAACGA GGTTGTT 2254 2350 ACCACAAA A UACAACAA 553 TTGTTGTA GGCTAGCTACAACGA TTTGTGGT 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTGTGG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TGTATTT 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TCCTGGT 2262 2392 GAAGCACG A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTTCCT 2263 2392 GAAGCACG C CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTTCC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA ACGCTGCTT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA GACTCTTT 2268 2413 AAAGAGUC A CAGGAAGG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2326	CUCAGAUC A CUUGGUUU	548	AAACCAAG GGCTAGCTACAACGA GATCTGAG	2250
2342 UAAAAACA A CCACAAAA 551 TTTTGTGG GGCTAGCTACAACGA TGTTTTTA 2253 2345 AAACAACC A CAAAAUAC 552 GTATTTG GGCTAGCTACAACGA GGTTGTTT 2254 2350 ACCACAAA UACAACAA 553 TTGTTGTA GGCTAGCTACAACGA TTTGTGGT 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTGTG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TGTATTTT 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GTGCTTCC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTTC 2264 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCTC 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCTC 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TCCTTCTG GGCTAGCTACAACGA GACTCTTT 2269 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2331	AUCACUUG G UUUAAAAA	549	TTTTTAAA GGCTAGCTACAACGA CAAGTGAT	2251
2345 AAACAACC A CAAAAUAC 552 GTATTTG GGCTAGCTACAACGA GGTTGTTT 2254 2350 ACCACAAA A UACAACAA 553 TTGTTGTA GGCTAGCTACAACGA TTTGTGGT 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTGTG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TGTATTTT 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TCCTTGGT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GTGCTTCC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTTC 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2397 AGCACGCU G UUUAUUGA 566 TCCTTCAA GGCTAGCTACAACGA AACAGCG 2267 2401 CGCUGUUU A UUGAAAGA 566 TCCTTCAA GGCTAGCTACAACGA AACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TCCTTCTG GGCTAGCTACAACGA GACTCTTT 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2339	GUUUAAAA A CAACCACA	550	TGTGGTTG GGCTAGCTACAACGA TTTTAAAC	2252
2350 ACCACAAA A UACAACAA 553 TTGTTGTA GGCTAGCTACAACGA TTTGTGGT 2255 2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTGTG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TGTATTTT 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTTCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA GACTCTTT 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2342	UAAAAACA A CCACAAAA	551	TTTTGTGG GGCTAGCTACAACGA TGTTTTTA	2253
2352 CACAAAAU A CAACAAGA 554 TCTTGTTG GGCTAGCTACAACGA ATTTTGTG 2256 2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TGTATTTT 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA GACTCTTT 2268	2345	AAACAACC A CAAAAUAC	552	GTATTTTG GGCTAGCTACAACGA GGTTGTTT	2254
2355 AAAAUACA A CAAGAGCC 555 GGCTCTTG GGCTAGCTACAACGA TGTATTTT 2257 2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA GACTCTTT 2269	2350	ACCACAAA A UACAACAA	553	TTGTTGTA GGCTAGCTACAACGA TTTGTGGT	2255
2361 CAACAAGA G CCUGGAAU 556 ATTCCAGG GGCTAGCTACAACGA TCTTGTTG 2258 2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA GACTCTTT 2269	2352	CACAAAAU A CAACAAGA	554	TCTTGTTG GGCTAGCTACAACGA ATTTTGTG	2256
2368 AGCCUGGA A UUAUUUUA 557 TAAAATAA GGCTAGCTACAACGA TCCAGGCT 2259 2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA GACTCTTT 2269	2355	AAAAUACA A CAAGAGCC	555	GGCTCTTG GGCTAGCTACAACGA TGTATTTT	2257
2371 CUGGAAUU A UUUUAGGA 558 TCCTAAAA GGCTAGCTACAACGA AATTCCAG 2260 2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA GACTCTTT 2269	2361	CAACAAGA G CCUGGAAU	556	ATTCCAGG GGCTAGCTACAACGA TCTTGTTG	2258
2379 AUUUUAGG A CCAGGAAG 559 CTTCCTGG GGCTAGCTACAACGA CCTAAAAT 2261 2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2368	AGCCUGGA A UUAUUUUA	557	TAAAATAA GGCTAGCTACAACGA TCCAGGCT	2259
2387 ACCAGGAA G CAGCACGC 560 GCGTGCTG GGCTAGCTACAACGA TTCCTGGT 2262 2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2371	CUGGAAUU A UUUUAGGA	558	TCCTAAAA GGCTAGCTACAACGA AATTCCAG	2260
2390 AGGAAGCA G CACGCUGU 561 ACAGCGTG GGCTAGCTACAACGA TGCTTCCT 2263 2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2379	AUUUUAGG A CCAGGAAG	559	CTTCCTGG GGCTAGCTACAACGA CCTAAAAT	2261
2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2387	ACCAGGAA G CAGCACGC	560	GCGTGCTG GGCTAGCTACAACGA TTCCTGGT	2262
2392 GAAGCAGC A CGCUGUUU 562 AAACAGCG GGCTAGCTACAACGA GCTGCTTC 2264 2394 AGCAGCAC G CUGUUUAU 563 ATAAACAG GGCTAGCTACAACGA GTGCTGCT 2265 2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2390	AGGAAGCA G CACGCUGU	561	ACAGCGTG GGCTAGCTACAACGA TGCTTCCT	2263
2397 AGCACGCU G UUUAUUGA 564 TCAATAAA GGCTAGCTACAACGA AGCGTGCT 2266 2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2392	GAAGCAGC A CGCUGUUU	562	AAACAGCG GGCTAGCTACAACGA GCTGCTTC	2264
2401 CGCUGUUU A UUGAAAGA 565 TCTTTCAA GGCTAGCTACAACGA AAACAGCG 2267 2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2394	AGCAGCAC G CUGUUUAU	563	ATAAACAG GGCTAGCTACAACGA GTGCTGCT	2265
2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2397	AGCACGCU G UUUAUUGA	564	TCAATAAA GGCTAGCTACAACGA AGCGTGCT	2266
2410 UUGAAAGA G UCACAGAA 566 TTCTGTGA GGCTAGCTACAACGA TCTTTCAA 2268 2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2401	CGCUGUUU A UUGAAAGA	565	TCTTTCAA GGCTAGCTACAACGA AAACAGCG	2267
2413 AAAGAGUC A CAGAAGAG 567 CTCTTCTG GGCTAGCTACAACGA GACTCTTT 2269	2410	UUGAAAGA G UCACAGAA	566		
2423 AGAAGAGG A UGAAGGUG 568 CACCTTCA GGCTAGCTACAACGA CCTCTTCT 2270	2413	AAAGAGUC A CAGAAGAG	567	CTCTTCTG GGCTAGCTACAACGA GACTCTTT	2269
	2423	AGAAGAGG A UGAAGGUG	568	CACCTTCA GGCTAGCTACAACGA CCTCTTCT	2270

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			The state of the s	2255
2429	GGAUGAAG G UGUCUAUC	569	GATAGACA GGCTAGCTACAACGA CTTCATCC	
2431	AUGAAGGU G UCUAUCAC	570	GTGATAGA GGCTAGCTACAACGA ACCTTCAT	2272
2435	AGGUGUCU A UCACUGCA	571	TGCAGTGA GGCTAGCTACAACGA AGACACCT	2273
2438	UGUCUAUC A CUGCAAAG	572	CTTTGCAG GGCTAGCTACAACGA GATAGACA	2274
2441	CUAUCACU G CAAAGCCA	573	TGGCTTTG GGCTAGCTACAACGA AGTGATAG	2275
2446	ACUGCAAA G CCACCAAC	574	GTTGGTGG GGCTAGCTACAACGA TTTGCAGT	2276
2449	GCAAAGCC A CCAACCAG	575	CTGGTTGG GGCTAGCTACAACGA GGCTTTGC	2277
2453	AGCCACCA A CCAGAAGG	576	CCTTCTGG GGCTAGCTACAACGA TGGTGGCT	2278
2462	CCAGAAGG G CUCUGUGG	577	CCACAGAG GGCTAGCTACAACGA CCTTCTGG	2279
2467	AGGGCUCU G UGGAAAGU	578	ACTTTCCA GGCTAGCTACAACGA AGAGCCCT	2280
2474	UGUGGAAA G UUCAGCAU	579	ATGCTGAA GGCTAGCTACAACGA TTTCCACA	2281
2479	AAAGUUCA G CAUACCUC	580	GAGGTATG GGCTAGCTACAACGA TGAACTTT	2282
2481	AGUUCAGC A UACCUCAC	581	GTGAGGTA GGCTAGCTACAACGA GCTGAACT	2283
2483	UUCAGCAU A CCUCACUG	582	CAGTGAGG GGCTAGCTACAACGA ATGCTGAA	2284
2488	CAUACCUC A CUGUUCAA	583	TTGAACAG GGCTAGCTACAACGA GAGGTATG	2285
2491	ACCUCACU G UUCAAGGA	584	TCCTTGAA GGCTAGCTACAACGA AGTGAGGT	2286
2500	UUCAAGGA A CCUCGGAC	585	GTCCGAGG GGCTAGCTACAACGA TCCTTGAA	2287
2507	AACCUCGG A CAAGUCUA	586	TAGACTTG GGCTAGCTACAACGA CCGAGGTT	2288
2511	UCGGACAA G UCUAAUCU	587	AGATTAGA GGCTAGCTACAACGA TTGTCCGA	2289
2516	CAAGUCUA A UCUGGAGC	588	GCTCCAGA GGCTAGCTACAACGA TAGACTTG	2290
2523	AAUCUGGA G CUGAUCAC	589	GTGATCAG GGCTAGCTACAACGA TCCAGATT	2291
2527	UGGAGCUG A UCACUCUA	590	TAGAGTGA GGCTAGCTACAACGA CAGCTCCA	2292
2530	AGCUGAUC A CUCUAACA	591	TGTTAGAG GGCTAGCTACAACGA GATCAGCT	2293
2536	UCACUCUA A CAUGCACC	592	GGTGCATG GGCTAGCTACAACGA TAGAGTGA	2294
2538	ACUCUAAC A UGCACCUG	593	CAGGTGCA GGCTAGCTACAACGA GTTAGAGT	2295
2540	UCUAACAU G CACCUGUG	594	CACAGGTG GGCTAGCTACAACGA ATGTTAGA	2296
2542	UAACAUGC A CCUGUGUG	595	CACACAGG GGCTAGCTACAACGA GCATGTTA	2297
2546	AUGCACCU G UGUGGCUG	596	CAGCCACA GGCTAGCTACAACGA AGGTGCAT	2298
2548	GCACCUGU G UGGCUGCG	597	CGCAGCCA GGCTAGCTACAACGA ACAGGTGC	2299
2551	CCUGUGUG G CUGCGACU	598	AGTCGCAG GGCTAGCTACAACGA CACACAGG	2300
2554	GUGUGGCU G CGACUCUC	599	GAGAGTCG GGCTAGCTACAACGA AGCCACAC	2301
2557	UGGCUGCG A CUCUCUUC	600	GAAGAGAG GGCTAGCTACAACGA CGCAGCCA	2302
2568	CUCUUCUG G CUCCUAUU	601	AATAGGAG GGCTAGCTACAACGA CAGAAGAG	2303
2574	UGGCUCCU A UUAACCCU	602	AGGGTTAA GGCTAGCTACAACGA AGGAGCCA	2304
2578	UCCUAUUA A CCCUCCUU	603	AAGGAGGG GGCTAGCTACAACGA TAATAGGA	2305
2587	CCCUCCUU A UCCGAAAA	604	TTTTCGGA GGCTAGCTACAACGA AAGGAGGG	2306
2596	UCCGAAAA A UGAAAAGG	605	CCTTTTCA GGCTAGCTACAACGA TTTTCGGA	2307
2604	AUGAAAAG G UCUUCUUC	606	GAAGAAGA GGCTAGCTACAACGA CTTTTCAT	2308
2617	CUUCUGAA A UAAAGACU	607	AGTCTTTA GGCTAGCTACAACGA TTCAGAAG	
2623	AAAUAAAG A CUGACUAC	608	GTAGTCAG GGCTAGCTACAACGA CTTTATTT	2310
2627	AAAGACUG A CUACCUAU	609	ATAGGTAG GGCTAGCTACAACGA CAGTCTTT	2311
2630	GACUGACU A CCUAUCAA	610	TTGATAGG GGCTAGCTACAACGA AGTCAGTC	2312
2634	GACUACCU A UCAAUUAU	611	ATAATTGA GGCTAGCTACAACGA AGGTAGTC	2313
2638	ACCUAUCA A UUAUAAUG	612	CATTATAA GGCTAGCTACAACGA TGATAGGT	2314
2641	UAUCAAUU A UAAUGGAC	613	GTCCATTA GGCTAGCTACAACGA AATTGATA	2315
2644	CAAUUAUA A UGGACCCA	614	TGGGTCCA GGCTAGCTACAACGA TATAATTG	2316
2648	UAUAAUGG A CCCAGAUG	615	CATCTGGG GGCTAGCTACAACGA CCATTATA	2317
2654	GGACCCAG A UGAAGUUC	616	GAACTTCA GGCTAGCTACAACGA CTGGGTCC	2318
2659	CAGAUGAA G UUCCUUUG	617	CAAAGGAA GGCTAGCTACAACGA TTCATCTG	2319
2669	UCCUUUGG A UGAGCAGU	618	ACTGCTCA GGCTAGCTACAACGA CCAAAGGA	2320
2673	UUGGAUGA G CAGUGUGA	619	TCACACTG GGCTAGCTACAACGA TCATCCAA	2321
2676	GAUGAGCA G UGUGAGCG	620	CGCTCACA GGCTAGCTACAACGA TGCTCATC	2322

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2678 UGAGCAGU G UGAGCGGC 521 GCCSCTCA GSCTAGCTACACGA ACTGCTCA 2232 2688 UGUGUGUA G CGCCCCC 522 GGGAGCG GGCTAGCTACACACGA TCACACGA 2325 2693 GCUCCCUU A UGAUGCCA 624 TGGCATCA GGCTACACACA AGGGAGC 2326 2696 CCUUNUG A UGACGACA 625 TGGCGGC GGCTAGCTACACACA AGGGAGC 2326 2698 CUUNUGAU G CCAGCAGA 625 TGGCGGC GGCTAGCTACACACA AGGGAGC 2326 2698 CUUNUGAU G CCAGCAGA 626 CTGGCTG GGCTAGCTACACACA ACTARAGGG 2327 2702 UGAUGCAG G UGAGGAG 627 CCCACTT GGCTAGCTACACACA ATCATAM 2329 2704 CAMUGCCA G CAGCAGA 626 CTGGCTG GGCTAGCTACACACA ATCATAM 2329 2712 AAGUGGGA G UGGGAGU 628 AACTCCCA GGCTAGCTACACACA ATCATCAM 2329 2714 SAGGAGUU G CCCGGGAG 630 CTCGCGG GGCTAGCTACACACA AACTCCC 2330 2712 CGGGAGAG CUUNAACU 631 AGTTTAG GGCTAGCTACACACA AACTCCC 2332 2727 CGGGAGAG CUUNAACU 631 AGTTTAG GGCTAGCTACACACA AACTCCC 2332 2738 UAAACUGG CAAAUCAC 633 GTGATTTAG GGCTAGCTACACACA AACTCCC 2332 2748 GGAAAUCA CUUGGAA 632 TTGCCAG GGCTAGCTACACACA ACCTGTTA 2334 2749 CUUGGACA UCACUGG 634 CCCACTCA GGCTAGCTACACACA ACCTGTTA 2336 2740 UUGAGACA GUUGGAA 635 TTGCCAG GGCTAGCTACACACA ACTTCCC 2338 2770 UUGAGAAA GUUGAAA 636 TCCANAG GGCTAGCTACACACA ACTTTCC 2338 2773 GANAAUCA GUUCAAA 637 TTGACCA GGCTAGCTACACACA ACTTTCC 2338 2779 UUGAGACA GACCACCA 639 TGCTAGA GGCTAGCTACACACA ACCTTTC 2340 2779 UGUUCAA GAUCACCA 639 TGCTAGA GGCTAGCTACACACA ACCTTTC 2340 2781 GUUCAAGC AUCAGCA 639 TGCTAGA GGCTAGCTACACACA ACCTTTC 2341 2781 GUUCAAGC AUCAGCA 639 TGCTAGA GGCTAGCTACACACA ACCTTTC 2341 2782 AGCAUCA GAUCAGCA 639 TGCTAGA GGCTAGCTACACACA ACCTTTC 2342 2785 AAGCAUCA CUCAGACA 641 GCCAAATG GGCTAGCTACACACA ACCTTTC 2342 2786 AGGACACA UCACACAC 639 TGCTAGA GGCTAGCTACACACA ACCTTTC 2343 2787 GCGCCAC AUCAGACA 641 GCCAAATG GGCTAGCTACACACA A		<u></u>			
2685 UGUGAGGE G CUCCCUUA 623 TRAGGGRG GGCTACTACACCA CGCTTACA 2325 2693 GCUCCCUU A UGAUGCCA 624 TGGCATTCA GGCTACACCACA CARANGGG 2326 2696 CCUCUUNG A UGCAGCA 625 TGGTGGGA GGCTAGGTACACCACA CARANGGG 2326 2696 CUCUAUGAU G CCAGCAAG 625 CTTGCTGG GGCTAGCTACACCACA CARANGGG 2328 2702 UGAUGCCA GCAGCAAG 626 CTTGCTGG GGCTAGCTACACCACA TCTCATAG 2328 2706 GCCAGCAGA UGAGGGAGU 628 ACTCCCA GGCTAGCTACACCACA TCCCACCT 2321 2712 AAGGGGAG 610 CTCGAGGG 629 CGGGCAAA GGCTAGCTACAACCA TCCCACCT 2331 2712 CAGGGABAG CUUAAACU 631 AGTTTAG GGCTAGCTACAACCA TCCCCCC 2322 2727 CGGGABAG ACUAAACUCA 631 TCCCAGG GGCTAGCTACAACCA TCCCAGTTT 2331 2733 AGACUCA A CUUGGAA 632 TTTGCCAG GGCTAGCTACAACCA TCCAGTTT 2332 2745 GGCAAAACA C A CUUGGAA 632 TCCCAATTTG GGCTACAACCA CACCTTTCTC 2333 2758					
2699 GCUCCUU A UGAUGCAC 624 TGGCATCA GGCTAGCTACAGGA AAGGGAGC 2326 2696 CCUULAUGAU G CCAGCAAG 625 TGCTGGCA GGCTAGCTCACAGGA CATAAGAGG 2327 2702 UGAUGCCA G CAAGUAGG 626 CTGCTGGG GGCTAGCTCACAGGA ATCATAAG 2328 2702 UGAUGCCA G CAAGUAGG 627 CCCACTTG GGCTAGCTACAAGGA TGGCATCA 2329 2706 GCCAGCAA G UGGGAGUU 628 AACTCCCA GGCTAGCTACAAGGA TTGCCTGGC 2330 2712 AAGUGGAG UUUGCCCG 629 CGGGCAAA GGCTAGCTACAAGGA TTCCCACTT 2311 2714 GGGAGUUU G CCCGGGAG 630 CTCCCGGG GGCTAGCTACAAGGA TACCACCT 2331 2727 CGGGGAGA A CUULAACU 631 AGTTTAAG GGCTAGCTACAACGA TACCACTT 2332 2733 AGACUUAA A CUGGGCAA 632 TTGCCCAG GGCTAGCTACAACGA CTCTCCCG 2332 2745 CGGGGAGA A CUULAACU 631 AGTTTAAG GGCTAGCTACAACGA TTAAGTTC 2334 2745 CGGGGAAA CUCAC 633 GTGATTG GGCTAGCTACAACGA TTAAGTTC 2335 2745 GGCAABUC A CUUGGAAG 634 CCACATGA GGCTAGCTACAACGA TTGCCCAC 2336 2745 GGCAABUC A CUUGGAAG 635 CTTCCAAG GGCTAGCTACAACGA TTGCCCAC 2336 2746 GGCAABUC A CUUGGAAG 636 CTCCAAAG GGCTAGCTACAACGA CCCTCTTC 2336 27470 UUGGAAAA G UGGUCAA 637 TGAAACCA GGCTAGCTACAACGA TTTCCCAC 2337 27470 UUGGAAAG G UCACACC 638 TGCTGAAG GGCTAGCTACAACGA CTTTTCC 2336 27481 GUUCAAGC A UCAGCA 638 TGCTGAAG GGCTAGCTACAACGA CTTTTCC 2340 27491 UGGUUCAA G CAUCAGCA 638 TGCTGAAG GGCTAGCTACAACGA CTTTTCC 2340 27492 UUGAAACC A UCAGCA 639 TGCTGAAG GGCTAGCTACAACGA CTTGATC 2341 27493 GAAAAUC A CUUAGGAA 640 AATGCTAC GGCTAGCTACAACGA CTTGATC 2342 27494 CAUUUGCA A UCAGCAA 641 GCCAAATG GGCTAGCTACAACGA CTTGATC 2342 27495 AAGCAUCAG A UCAGCAA 642 ATGCCAA GGCTAGCTACAACGA CTTGATC 2342 27497 CAUUUGCA A UCAGCAA 642 ATGCCAA GGCTAGCTACAACGA CTTGATC 2342 27498 AAGCAUCAG A UCAGCAA 644 TTCTTAA GGCTAGCTACAACGA GCTGATC 2345 27598 AAGCAUCAG A UCAGCAA 645 TGCGGAC GGCTAGCTACAACGA GCTGATC 2345 27698 AAGCAUCAG A CUUAGGAA 644 TTCTTAA GGCTAGCTACAACGA ACGTTGCT 2346 28101 ACCUCAGA A UCAGCAG 6		CAGUGUGA G CGGCUCCC	622		2324
2696 CCCUUNUU A UGCCAGCA 625 TGCTGCCA GGCTAGCTCACCGA CATAAGG 2327 2698 CUUNAUGAU G CCAGCAAG 626 CTTGCTGG GGCTAGCTCACAGGA ATCATAAG 2328 2702 UGANGOCA G CAAGUGAG 627 CCCACTTG GGCTAGCTCACAGGA TGGCATCA 2329 2706 GCCAGCAA G UGGGAGUU 628 AACTCCCA GGCTAGCTACAACGA TTGCCCACTT 2331 2712 AAGUGGAA GUGGAGCAA 630 CTCCCGGG GGCTAGCTACAACGA TCCCACTT 2332 2712 CGGGAGAA AUUGAACC 631 ATTTTAG GGCTAGCTACAACGA TCCCACTT 2332 2727 CGGGAGAA AUUGAACC 631 ATTTTAG GGCTAGCTACAACGA TCCCCCC 2332 2738 UAAACUGG CCAAGUAC 632 TTGCCCAG GGCTAGCTACAACGA CCACTTTT 2335 2742 CUGGGCAA A UCACUUGG 634 CCAAGTAG GGCTAGCTACAACGA CACTTTTC 2336 2775 GACAABUC A CUUGAGA 635 TTCCAAA GGCTAGCTACAACGA CCTTTTC 2338 2775 GAAAGGG CUUGAGCA 637 TTGAACCA GGCTAGCT	2685	UGUGAGCG G CUCCCUUA	623	TAAGGGAG GGCTAGCTACAACGA CGCTCACA	2325
2699	2693	GCUCCCUU A UGAUGCCA	624		
2702 UGNUGCCA G CAAGUGGG 627 CCCACTTG GGCTAGCTACAGGA TIGGCATCA 2329 2706 GCCAGCAA G UGGGAGUU 628 AACTCCCA GGCTAGCTACACAGA TIGGCTGC 2330 2712 AAGUGGGA G UUUGCCGG 629 GGGCAAA GGCTAGTTACACGA TIGGCTGT 2331 2716 GGGAGUU G CCCGGGAG 630 CTCCCGGG GGCTAGCTACACAGA ACCTCCC 2332 2727 CGGGAGAG A CUUAAACU 631 AFTTTAGG GGCTAGCTACACAGA CTCTCCCG 2331 2733 AGACUUAA A CUGGGCAA 632 TIGCCCAG GGCTAGCTACACAGA CTCAGTTA 2334 2738 UAAACUGG G CAAUCAC 633 GTGATTG GGCTAGCTACACAGA CTCAGTTA 2335 2742 CUGGGCAA A UCACUUGG 634 CCAACTCA GGCTAGCTACACAG CTCTTC 2337 2758 GAAGAGGG G CUUUUGGA 635 TTCCAAA G GCTAGCTACACAGA CTTTTC 2336 2770 UUGGAAAA G UGCACCA 637 TTGAACCA GGCTAGCTACACAGA CTTTTC 2340 2771 UGGUCCAA 638 TGCTTGAA GGCTAGCTACACAGA CCTTTC 2341 2781 GUCACAGC 649 TTGTAGA GGCTAGCTACACAGA CCTTTC 2341 <td>2696</td> <td>CCCUUAUG A UGCCAGCA</td> <td>625</td> <td>TGCTGGCA GGCTAGCTACAACGA CATAAGGG</td> <td>2327</td>	2696	CCCUUAUG A UGCCAGCA	625	TGCTGGCA GGCTAGCTACAACGA CATAAGGG	2327
2706 GCCAGCAA G UGGGAGUU 628 AACTCCCA GGCTAGCTACAACGA TTGCTGGC 2330 2712 AAGUGGGA G UTUGCCCG 629 CGGGCAAA GGCTAGCTACAACGA TCCCACTT 2331 2716 GGGAGUU G CCCGGGAG 630 CTCCCGGG GGCTAGCTACAACGA ACTCCCC 2332 2727 CGGGAGAG A CUUAAACU 631 AGTTTAG GGCTAGCTACAACGA CTCTCCCC 2333 2733 AGACUUAA A CUGGGCAA 632 TTGCCCAG GGCTAGCTACAACGA CTCTCCCC 2336 2738 UAAACUGG G CAAAUCAC 633 GGCTAGCTACAACGA CCCATTTCCCAG 2336 2745 GGCAAAUCA CACUUGGA 633 CTTCCAAG GGCTAGCTACAACGA CACTCTTCCCAG 2336 2745 GGCAAAUCA CUUGGAAG 636 CTCCAAG GGCTAGCTACAACGA CACCTCTTC 2338 2775 GAAAGUG G UUCAAGA 636 TGCTAAGA GGCTAGCTACAACGA CACCTCTTC 2339 2773 GAAAGUG G UUCAAGA 637 TTGAACG GGCTAGCTACAACGA CACTTTTC 2340 2779 UGGUCAAG G AUCAGCA 639 TGCTGATG GGCTACAACGA CACTTTTC 2341 2781 GUUCAAGC A UCAGCAU 640 AATGCTGA GGCTAGCTACAACGA CACTACTACACGA CACTACTACACCA <	2698	CUUAUGAU G CCAGCAAG	626	CTTGCTGG GGCTAGCTACAACGA ATCATAAG	2328
2712 AAGUGGGA G UUUGCCCG 629 CGGGCAAA GGCTACTACAACA TCCCACTT 2331 2716 GGGAGGUU G CCCGGGAG 630 CTCCCGGG GGCTACCTACAACAA AAACTCCC 2332 2727 CGGGAGAG A CUUAAACU 631 AGTTTAGA GGCTACCTACAACGA CTCCCCC 2333 2733 AGACUUAA A CUUGGCAA 632 TTGCCCAG GGCTAGCTACAACGA CACGCTCCC 2334 2742 CUGGGCAA 10 CACUUGG 634 CCAAGTGA GGCTAGCTACAACGA CACGTTTCCC 2335 2745 GGCAAAUC A CUUGGAAG 635 CTCCAAG GGCTAGCTACAACGA CATTTCCC 2337 2758 GAAGAGG G CUUUUGGA 636 TCCAAAG GGCTAGCTACAACGA CATTTCCC 2337 2775 UUGGAAA G UGGUUCAA 637 TTGAACCA GGCTAGCTACAACGA TCTTCCCA 2339 2779 UGGUCAAG C AUCAGCA 638 TGCTGATG GGCTAGCTACAACGA CACTTTTC 2340 2781 GUCAAGCA 643 TGCTGATG GGCTAGCTACAACGA CACGA TCTGAAC 2341 2786 AAGCAUCA G CAUUAGGA 641 GCCAAATG GGCTAGCTACAACGA CATTCTT 2343 2787 GCAUCAGC A UUUAGCA 641 GCCAAATG GGCT	2702	UGAUGCCA G CAAGUGGG	627	CCCACTTG GGCTAGCTACAACGA TGGCATCA	2329
2716 GGGAGUUU G CCCGGAG 630 CTCCCGGG GGCTAGCTACAACGA AAACTCC 2332 2727 CGGGAGAG A CUUAAACU 631 ASTITIAG GGCTAGCTACAACGA CTCTCCCC 2334 2738 NAGACULAR A CUGGGCAA 632 TTGCCCAG GGCTAGCTACAACGA CTAGTTA 2334 2738 UAAACUGG G CAABUCAC 633 GGGTAGCTACAACGA CCGATTTA 2335 2742 CUGGGCAA A UCACUUGG 634 CCAAGTGA GGCTAGCTACAACGA CTTGCCCA 2336 2745 GGCAAAUC A CUUGGAAG 635 CTCCAAAG GGCTAGCTACAACGA CTTGCC 2337 2758 GAAAGGG G CUUUGGA 636 TCCAAAAG GGCTAGCTACAACGA CTTTCCCA 2337 2770 UUGGAAAA G UGCAAGCA 636 TGCTGATG GGCTAGCTACAACGA TTTTCCCA 2339 2773 GAAAAGUG G UUCAAGCA 639 TGCTGATG GGCTAGCTACAACGA TTTTCCCA 2342 27879 UGGUCAAG G AUUGAGCA 639 TGCTGATG GGCTAGCTACAACGA TTTTCCA 2342 27816 GUUCAAGC A UCAGCAU 640 AATGCTAG GGCTAGCTACAACGA TCTTACA 2342 27879 CGCUAGGG A UCUGGCAG 641 ACCCAAAG GGCTAGCTACAACGA TCTTACA 2342 </td <td>2706</td> <td>GCCAGCAA G UGGGAGUU</td> <td>628</td> <td>AACTCCCA GGCTAGCTACAACGA TTGCTGGC</td> <td>2330</td>	2706	GCCAGCAA G UGGGAGUU	628	AACTCCCA GGCTAGCTACAACGA TTGCTGGC	2330
2727 CGGGAGAG A CUUAAACU 631 AGTTTAAG GGCTAGCTACAACGA CTCTCCCC 2333 2733 AGACUUAA A CUGGGCAA 632 TTGCCCAG GGCTAGCTACAACGA CTATAGTCT 234 2738 MAACUGAG CAAAUCAC 633 GTGATTTG GGCTAGCTACAACGA CCAGTTA 2335 2742 CUGGGCAA A UCACUGG 634 CCAAGTGA GGCTAGCTACAACGA CTCTCCAC 2336 2745 GGCAAGUCA C CUUGGAA 635 CTTCCAAG GGCTAGCTACAACGA CTCTCCA 2336 2758 GAAGAGG G CUUUGGA 636 TCCAAAG GGCTAGCTACAACGA CCCTCTTC 2338 2770 UUGGAAAA G UGGUCAA 637 TTGAACCA GGCTAGCTACAACGA CTTTCCAC 2339 2773 GAAAAGGG C GUUCAAGCA 639 TGCTGAA GGCTAGCTACAACGA TTGAACCA 2341 2781 GGUCAAGC A UCAGCAUU 640 AATGCTGA GGCTACAACGA TGAACCA 2341 2785 AAGCAUCA G CAUUAGGA 641 GCCAAATG GGCTACAACGA TGATCAACCA 2342 2786 AGCUUCA G CAUUAGGA 641 GCCAAATG GGCTACAACGA TGATCAACCA 2342 2781 AGCACACA G CAUUAGGA 641 TCTTAATG GGCTACAACCA CAAATGCT 2344 </td <td>2712</td> <td>AAGUGGGA G UUUGCCCG</td> <td>629</td> <td>CGGGCAAA GGCTAGCTACAACGA TCCCACTT</td> <td>2331</td>	2712	AAGUGGGA G UUUGCCCG	629	CGGGCAAA GGCTAGCTACAACGA TCCCACTT	2331
2733 RARCUUAR A CUGGCAA 632 TTGCCCAG GGCTAGCTACAACGA TTAACTCT 2334 2738 UARACUGG G CARAUCAC 633 GTGATTTG GGCTAGCTACAACGA CCAGTTTA 2335 2742 CUGGGCAA A UCACUUGG 634 CCAAGTGA GGCTAGCTACAACGA CTAGTTCCAG 2336 2745 GGCARAUC A CUUGGAAG 635 CTTCCAAG GGCTAGCTACAACGA CTTTTC 2337 2758 GAAGAGGG G CUUUUGGA 636 TCCAAAAG GGCTAGCTACAACGA CTTTTC 2339 2770 UUGGAAAA G UGGUUCAA 637 TTGAACCA GGCTAGCTACAACGA CTTTTC 2340 2771 GAAAAGUG G UUCAAGCA 639 TGCTGAA GGCTAGCTACAACGA TTTAACCA 2341 2773 GAGUCAGC A UCAGCAUU 640 ATGCTATA GGCTAGCTACAACGA TTGAACCA 2341 2781 GUUCAAGC A UCAGCAUU 640 ATGCCAAA GGCTAGCTACAACGA GCTATACCA 2342 2786 GCAUCAGC A UUGAGCA 641 GCCAAATG GGCTAGCTACAACGA GCTATACT 2344 2792 AGCAUCAG C A UUGAGCA 642 ATGCCAAA GGCTAGCTACAACGA GCTATACT 2344 2792 AGCAUCAGCA A TTGCCAACAGA GCTACAACAA GGCTACAACAA TTCTTAAT 2345 <td< td=""><td>2716</td><td>GGGAGUUU G CCCGGGAG</td><td>630</td><td>CTCCCGGG GGCTAGCTACAACGA AAACTCCC</td><td>2332</td></td<>	2716	GGGAGUUU G CCCGGGAG	630	CTCCCGGG GGCTAGCTACAACGA AAACTCCC	2332
2738 UARACUGG G CARAUCAC 633 GTGATTTG GGCTAGATGAACGA CCAGTTTA 2335 2742 CUGGGCAA A UCACUUGG 634 CCAAGTGA GGCTAGCTACAACGA TTGCCCAS 2336 2755 GAGAAGGG G CUUUUGGA 635 CTTCCAAG GGCTAGCTACAACGA GATTTGCCAS 2337 2758 GAAGAGGG G CUUUUGGA 636 TCCAAAAG GGCTAGCTACAACGA CACTTTC 2338 2770 UUGGAAAA G UGGUUCAA 637 TTGAACCA GGCTAGCTACAACGA TTTTCCAA 2339 2773 GAAAAGUG G UUCAAGCA 638 TGCTTGAA GGCTAGCTACAACGA TGTACCAACGA TTTTCCAA 2339 2779 UGGUCAA G CAUCAGCA 638 TGCTGATG GGCTAGCTACAACGA CACTTTC 2340 2781 GUUCAAGC A UCAGCAUU 640 AATGCCAA GGCTAGCTACAACGA GCTGTACACCA 2341 2785 AAGCAUCA G CAUUAGCA 639 TGCTGATG GGCTAGCTACAACGA GCTGACC 2342 2786 AGCAUCAG C AUUGGCAU 640 AATGCCAAA GGCTAGCTACAACGA GCTGATCC 2344 2787 GCALICAGC A UUGAGAU 642 ATGCCAAA GGCTAGCTACAACGA GCTAATCC 2345 2792 AGCAUUGG C AUUGGCAU 642 ATGCCAAA GGCTAGCTACAACGA GCTAATCC 2345 2794 CAUUAGGA A UCACCUAC 645 GTAGGTAG GGCTAGCTACAACGA GCCAATGCT 2347 2805 AAUCACCU A CUUACAGA 644 TTCTTAAT GGCTAGCTACAACGA ATTCTTAATACACAACAA ATTCTTAATACACAACAACAACAACAACAACAACAACAAC	2727	CGGGAGAG A CUUAAACU	631	AGTTTAAG GGCTAGCTACAACGA CTCTCCCG	2333
2742 CUGGGCAA A UCACUUGG 634 CCAAGTGA GGCTAGCTACACGA TTUCCUG 2336 2745 GGCAADUC A CUUGGAAG 635 CTTCCAAG GGCTAGCTACAACGA CCCTCTC 2337 2758 GAAGAGGG G CUUUUGGA 636 TCCAAAAG GGCTAGCTACAACGA CCCTCTC 2338 2770 DUGGAAAA G UGGUUCAA 637 TTGAACCA GGCTAGCTACAACGA CCCTTTC 2340 2773 GAAAAGUG G UUCAAGCA 638 TGCTGATA GGCTACCACGA CACTTTC 2340 2779 UGGUUCAA G CAUCAGCA 638 TGCTGAT GGCTACCACGA CACTTTC 2340 2779 UGGUUCAA G CAUCAGCA 639 TGCTGATG GGCTAGCTACACGA CACTTGAAC 2341 2781 GUUCAAGC A UCAGCA 640 AATGCTGA GGCTAGCTACACGA CACTGAACCA 2341 2787 GCAUCAGC A UUCAGCA 641 GCCAAATG GGCTAGCTACAACGA GTGTACCA 2342 2792 AGCAULUG G CAULAAGA 642 ATGCCAAA GGCTAGCTACAACGA CAAATGCT 2346 2802 AUUAAGAA A UCACCUAC G45 GTGGGTGA GGCTAGCTACAACGA CACTACTACTACTACTACTACTACTACTACTACTACTACT	2733	AGACUUAA A CUGGGCAA	632	TTGCCCAG GGCTAGCTACAACGA TTAAGTCT	2334
2745 GGCAAAUC A CUUGGAAG 635 CTTCCAAG GGCTAGCTACAACGA GATTTGCC 2337 2758 GAAGAGGG G CUUUUUGA 636 TCCAAAAG GGCTAGCTACAACGA CCCTCTTC 2338 2770 UUGGAAAA G UGGUUCAA 637 TTGAACCA GGCTAGCTACAACGA TTTTCCAA 2339 2773 GAAAAGUG G UUCAAGCA 638 TGCTGATG GGCTAGCTACAACGA TTGAACCA 2341 2779 UGGUUCAA G CAUCAGCA 639 TGCTGATG GGCTAGCTACAACGA TTGAACCA 2341 2781 GUCAAGC A UCAGCAU 640 AATGCTGAA GGCTAGCTACAACGA TGATGCTT 2343 2787 AGCAUCAG C AUUUGGCU 642 ATGCCAAA GGCTAGCTACAACGA TGATGCTT 2344 2792 AGCAUUUG G CAUUAAGAA 643 TCTTATG GGCTAGCTACAACGA CAATGCT 2345 2794 CAUUAGGA A UCACCUAC 645 GTGAGGGA GGCTAGCTACAACGA CAATGGT 2346 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA GATTCTT 2348 2801 AUUACCUAC G UGCCGGAC 647 CCGGCACG GGCTAGCTACAACGA GATTGGT 2350 2811 UCACCUAC G UGCCGGAC 648 GTCCGGACG GGCTAGCTACA	2738	UAAACUGG G CAAAUCAC	633	GTGATTTG GGCTAGCTACAACGA CCAGTTTA	2335
2758 GAAGAGGG G CUUUUGGA 636 TCCAAAAG GGCTAGCTACAACGA CCCTCTC 2338 2770 UUGGAAAA G UGGUUCAA 637 TTGAACCA GGCTAGCTACAACGA TTTTCCAA 2339 2773 GAAAAGUG G UUCAAGCA 638 TGCTGATG GGCTAGCTACAACGA CACTTTTC 2340 2779 UGGUUCAA G CAUUUGGC 640 AATGCTGA GGCTAGCTACAACGA GCTTGAAC 2341 2781 GUUCAGC A UUUGGCU 641 GCCAAATG GGCTAGCTACAACGA GCTGATC 2342 2785 AAGCAUCA G CAUUUGGCU 642 ATGCCAAATG GGCTAGCTACAACGA GCTGATC 2344 2792 AGCAUUUG G CAUUAAGA 643 TCTTAATG GGCTAGCTACAACGA GCAAATG 2346 2794 CAUUUGGC A UUAAGAA 644 TTCTTAATG GGCTAGCTACAACGA GCAAATG 2346 2802 AUUAAGAA 644 TTCTTAATG GGCTAGCTACAACGA GCAAATG 2346 2803 AAUCACCU A CCUACGUG 645 GTAGGTAGCTACAACGA GCAAAGA 2347 2811 UCACCUAC G UGCCGGAC 647 CCGGCACG GGCTAGCTACAACGA GTGGTAC 2349 2811 UCACCUAC G UGCGGAC 648 GTCCGGCAG GGCTAGCTACAACGA ACGTGCC 2352 <	2742	CUGGGCAA A UCACUUGG	634	CCAAGTGA GGCTAGCTACAACGA TTGCCCAG	2336
2770 UUGGAAAA G UGGUUCAA 637 TTGAACCA GGCTAGCTACAACA TTTTCCAA 2339 2773 GAAAAGUG G UUCAAGCA 638 TGCTGAA GGCTAGCTACAACGA CACTTTC 2340 2779 UGGUUCAA G CAUCAGCA 639 TGCTGATG GGCTAGCTACAACGA TTGAACCA 2341 2781 GUUCAAGC A UCAGCAUU 640 AATGCTGA GGCTAGCTACAACGA TTGAACCA 2342 2785 AAGCAUCA G CAUUUGGC 641 GCCAAATG GGCTAGCTACAACGA TTGATGCT 2344 2787 GCAUCAGC A UUUGGCU 642 ATGCCAAA GGCTAGCTACAACGA CAAATGCT 2345 2792 AGCAUUUG G CAUUAAGAA 643 TTCTTAAT GGCTAGCTACAACGA CAAATGCT 2345 2802 AUUAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA ATTCTTAAT 2347 2805 AAGAAAUC A CCUACGUG 646 CACGTAGC GGCTAGCTACAACGA ATTCTTAAT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA AGTTGGTT 2350 2811 UCACCUAC G UGCCGGAC 649 CAGTCCGG GGCTAGCTACAACGA ACGTGGT 2351 2811 GCCGGACU G CCGGACUG 650 AGCCACAG GGCTAGCTACAACGA ACGTGGT 235	2745	GGCAAAUC A CUUGGAAG	635	CTTCCAAG GGCTAGCTACAACGA GATTTGCC	2337
2773 GAAAAGUG G UUCAAGCA 638 TGCTTGAA GGCTAGCTACAAGGA CACTTTTC 2340 2779 UGGUUCAA G CAUCAGCA 639 TGCTGATG GGCTAGCTACAAGGA TTGAACCA 2341 2781 GUUCAAGC A UCAGCAUU 640 AATGCTGA GGCTAGCTACAACGA TGATGCAC 2342 2785 AAGCAUCA G CAUUUGGC 641 GCCAAATG GGCTAGCTACAACGA GCTGATC 2343 2787 GCAUCAGC A UUUGGCAU 642 ATGCCAAA GGCTAGCTACAACGA GCTAGTC 2344 2792 AGCAUUUGG C AUUAAGA 643 TCTTAATG GGCTAGCTACAACGA GCCAAATG 2345 2794 CAUUUGC A UUAAGAA 644 TTTCTTAA GGCTAGCTACAACGA GCCAAATG 2346 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA GATTTCTT 2348 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA AGTTACTACT 2349 2811 UCACCUAC G UGCCGGAC 648 GTGGGCA GGCTAGCTACAACGA AGTTACTACT 2349 2811 UCACCUAC G UGCAGCA 649 CAGTCCGG GCCTAGCTACAACGA AGTCCGC 2351 2821 GCUGGACU G UGCAAAA 651 CACAGCCA GGCTACCAACGA AGTCCGC 2352 <td>2758</td> <td>GAAGAGGG G CUUUUGGA</td> <td>636</td> <td>TCCAAAAG GGCTAGCTACAACGA CCCTCTTC</td> <td>2338</td>	2758	GAAGAGGG G CUUUUGGA	636	TCCAAAAG GGCTAGCTACAACGA CCCTCTTC	2338
27779 UGGUUCAA G CAUCAGCA 639 TGCTGATG GGCTAGCTACAACGA TTGAACCA 2341 2781 GUUCAAGC A UCAGCAUU 640 AATGCTGA GGCTAGCTACAACGA GCTTGAAC 2342 2785 AAGCAUCA G CAUUUGGC 641 GCCAAATG GGCTAGCTACAACGA GCTTGACC 2344 2787 GCAUCAGC A UUUGGCAU 642 ATGCCAAA GGCTAGCTACAACGA GCTAATGC 2344 2794 CAUUUGGC A UUAAGAA 643 TCTTAATG GGCTAGCTACAACGA GCAAATG 2345 2802 AUUAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA GCAAATG 2346 2802 AAUAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA GCTAATT 2347 2803 AAUAACCU A CGUACGG 646 CCGGCACG GGCTAGCTACAACGA GTTTCTT 2348 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA GTTAGGTAC 2351 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2813 ACCUCCGG A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGTACCA 2352 2824 GGACUGUG G CUGUGAA 652 TTTCACAG GGCTAGCTACAAC	2770	UUGGAAAA G UGGUUCAA	637	TTGAACCA GGCTAGCTACAACGA TTTTCCAA	2339
2781 GUUCAAGC A UCAGCAUU 640 AATGCTGA GGCTAGCTACAACGA GCTTGAAC 2342 2785 AAGCAUCA G CAUUUGGC 641 GCCAAATG GGCTAGCTACAACGA TGATGCTT 2343 2787 GCAUCAGC A UUUUGGCU 642 ATGCCAAA GGCTACAACGA CAACGA CAAATGCT 2344 2792 AGCAUUUG C AUUAAGA 643 TCTTAATG GGCTACAACGA CAAATGCT 2345 2794 CAUUUGGC A UUAAGAA 644 TTTCTTAA GGCTACAACGA GCCAAATG 2346 2802 AUUAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA TCTTAAT 2347 2805 AAGAAAUC A CUACGUG G64 CCGGCAC GGCTAGCTACAACGA AGTTGTTCT 2348 2809 AAUCACCU A CGUGCCGG 647 CCGGGAC GGCTAGCTACAACGA AGTGGTT 2349 2811 UCACCUAC G UGCCGGAC G648 GTCCGGCA GGCTAGCTACAACGA ACGTAGTT 2351 2813 ACCUACGU G CCGGACUG G649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2352 2821 GCCGGACU G UGGUGUG 651 AGCCACAG GGCTAGCTACAACGA ACCAGCCCCCCCCCC	2773	GAAAAGUG G UUCAAGCA	638	TGCTTGAA GGCTAGCTACAACGA CACTTTTC	2340
2785 AAGCAUCA G CAUUUGGC 641 GCCAAATG GGCTAGCTACAACGA TGATGCTT 2343 2787 GCAUCAGC A UUUGGCAU 642 ATGCCAAA GGCTAGCTACAACGA GCTGATGC 2344 2792 AGCAUUUG G CATUAAGA 643 TCTTAATG GGCTAGCTACAACGA GCCAAATG 2345 2794 CAUUUGGC A UUAAGAAA 644 TTCTTATA GGCTAGCTACAACGA GCCAAATG 2346 2802 AUUAAGAA A UCACCUAC 645 GTAGGTAG AGCAAACGA TTCTTAAT 2347 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA ATTCTT 2348 2809 AAUCACCU A CGUGCGGAC 648 GTCCGGCA GGCTAGCTACAACGA AGGTGATT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA ACGTAGGT 2350 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2821 GCUGCGGA A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGTACGC 2352 2821 GCCGGACU G UGAAAAUG 651 CACAGCA GGCTACAACGA ACCCACGC 2352 2827 CUGUGCU G UGAAAAUG 652 TTTCACAG GGCTAGCTACAACGA ACCCACAC 2355	2779	UGGUUCAA G CAUCAGCA	639	TGCTGATG GGCTAGCTACAACGA TTGAACCA	2341
2787 GCAUCAGC A UUUGGCAU 642 ATGCCAAA GGCTAGCTACAACGA GCTGATGC 2344 2792 AGCAUUUG G CAUUAAGA 643 TCTTAATG GGCTACAACGA CAAATGCT 2345 2794 CAUUUGGC A UUAAGAA 644 TTTCTTAA GGCTAGCTACAACGA CCAAATGC 2346 2802 AUUAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA TTCTTAAT 2347 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA AGGTTGTT 2348 2809 AAUCACCU A CGUGCGG 647 CCGGCAC GGCTAGCTACAACGA AGGTTGTT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGCA GGCTAGCTACAACGA AGGTAGGTA 2350 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA AGGTAGGTA 2351 2814 GCGCGGACU G UGGCUGUG 650 AGCCACAG GGCTAGCTACAACGA AGTCCGGC 2352 2824 GGACUGUG G CUGUGAAA 651 CACAGCCA GGCTAGCTACAACGA AGCCACAG 2355 2827 CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA ACTTCACAG 2356 2833 CUGUGAAA 651 TTCTACAG GGCTAGCTACAACGA TTTCACAG 2356 <t< td=""><td>2781</td><td>GUUCAAGC A UCAGCAUU</td><td>640</td><td>AATGCTGA GGCTAGCTACAACGA GCTTGAAC</td><td>2342</td></t<>	2781	GUUCAAGC A UCAGCAUU	640	AATGCTGA GGCTAGCTACAACGA GCTTGAAC	2342
2792 AGCAUUUG G CAUUAAGA 643 TCTTAATG GGCTAGCTACAACGA CAAATGCT 2345 2794 CAUUUGGC A UUAAGAAA 644 TTTCTTAA GGCTAGCTACAACGA GCCAAATG 2346 2802 AUUAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA GCCAAATG 2347 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA GATTCTTAT 2348 2809 AAUCACCUA C GUGCCGG 647 CCGGCAC GGCTAGCTACAACGA AGGTGATT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA AGGTAGGT 2350 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2818 CGUGCCGG A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGTAGGT 2352 2821 GCCGGACU G UGGAAAA 651 CACAGCCA GGCTAGCTACAACGA AGTCCGC 2353 2824 GGACUGUG G UGGAAAAA 652 TTTCACAG GGCTAGCTACAACGA AGCCACCA 2355 2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTAGCTACAACGA ATTTCACAC 2356 2848 AAGAGGGG G CCACGGCC 656 GCGCGTGG GGCTAGCTACAACGA CCCCTCT 23	2785	AAGCAUCA G CAUUUGGC	641	GCCAAATG GGCTAGCTACAACGA TGATGCTT	2343
2794 CAUUUGGC A UUAAGAAA 644 TITCTTAA GGCTACAACGA GCCAAATG 2346 2802 AUUAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA TTCTTAAT 2347 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA GATTTCTT 2348 2809 AAUCACCU A CGUGCCGG 647 CCGGCACG GGCTAGCTACAACGA AGGTGATT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA AGGTAGGT 2350 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2818 CGUGCGGA C UGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGTAGGT 2352 2821 GCCGGACU G UGGCUGU 651 CACAGCCA GGCTAGCTACAACGA AGTCCGC 2352 2827 CUGUGGAA 652 TTTCACAG GGCTAGCTACAACGA AGCCACAC 2355 2833 CUGUGAAA A UGCUGAAAA 654 TTTCAGCA GGCTAGCTACAACGA TTTCACAC 2356 2848 AAGAGGGG G CACGGCC 655 GCTGGCCG GGCTAGCTACAACGA ATTTCACAC 2357 2851 AGGGGCCA G CACGGAC 657 GCTGGCCG GGCTAGCTACAACGA CCCCTCTT 2358 <td>2787</td> <td>GCAUCAGC A UUUGGCAU</td> <td>642</td> <td>ATGCCAAA GGCTAGCTACAACGA GCTGATGC</td> <td>2344</td>	2787	GCAUCAGC A UUUGGCAU	642	ATGCCAAA GGCTAGCTACAACGA GCTGATGC	2344
2802 AUNAAGAA A UCACCUAC 645 GTAGGTGA GGCTAGCTACAACGA TTCTTAAT 2347 2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA GATTTCTT 2348 2809 AAUCACCU A CGUGCCGG 647 CCGGCACG GGCTAGCTACAACGA AGGTGATT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA AGGTAGGTACTACACGA CAGGACGA CGGCCGC 2350 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2818 CGUGCGGA C UGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGTAGGT 2352 2821 GCCGGACU G UGGCUGUG 651 CACAGCCA GGCTAGCTACAACGA AGCCACG 2352 2824 GGACUGUG G CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA AGCCACG 2355 2835 CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA AGCCACG 2355 2835 GUGAAAAU G CUGAAAAA 654 TTTCACAG GGCTAGCTACAACGA AGCCACAG 2355 2835 GUGAAAAU G CUGAAGA 655 TCTTTCAG GGCTACCAACGA ACTCTTCT 2358 2851 AGGGGCC A CGGCCAGC 656 GGCCGTGG GGCTAGCTACAACGA CCCCTTCT 2358 2854	2792	AGCAUUUG G CAUUAAGA	643	TCTTAATG GGCTAGCTACAACGA CAAATGCT	2345
2805 AAGAAAUC A CCUACGUG 646 CACGTAGG GGCTAGCTACAACGA GATTTCTT 2348 2809 AAUCACCU A CGUGCCGG 647 CCGGCACG GGCTAGCTACAACGA AGGTGATT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA AGGTGAT 2350 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2818 CGUGCCGG A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGTACGGC 2352 2821 GCCGGACU G UGGUGUG 651 CACAGCCA GGCTAGCTACAACGA ACGTCCGC 2353 2824 GGACUGUG G CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA ACCACTCC 2354 2827 CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA ACCACTC 2355 2833 CUGUGAAA 654 TTTCAGGA GGCTAGCTACAACGA ATTTCACA 2356 2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCTACAACGA ATTTCACA 2357 2851 AGGGGCAC G CCAGCGAG 657 GCTGGCG GGCTAGCTACAACGA CCCCCCTT 2358 2852 CACGGCAG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CTGCCCC 2360 <t< td=""><td>2794</td><td>CAUUUGGC A UUAAGAAA</td><td>644</td><td>TTTCTTAA GGCTAGCTACAACGA GCCAAATG</td><td>2346</td></t<>	2794	CAUUUGGC A UUAAGAAA	644	TTTCTTAA GGCTAGCTACAACGA GCCAAATG	2346
2809 AAUCACCU A CGUGCCGG 647 CCGGCACG GGCTAGCTACAACGA AGGTGATT 2349 2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA AGGTGAT 2350 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2818 CGUGCCGG A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGCACG 2352 2821 GCCGGACU G UGUGAAA 652 TTTCACAG GGCTAGCTACAACGA ACCAGTCC 2354 2827 CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA ACCAGTC 2354 2827 CUGUGAAA 654 TTTCACAG GGCTAGCTACAACGA ACCACAG 2355 2833 CUGUGAAA 654 TTTCACAG GGCTAGCTACAACGA ACCACAG 2355 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTCAC 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCAACGA ACCCCTCT 2358 2851 AGGGGCCA G CGAGCAGC 657 GCTGGCCG GGCTAGCTACAACGA CCCCTCT 2359 2854 GGGCCACG G CCAGCAGA 658 CTCGCTG GGCTAGCTACAACGA TCGCTCCC 2360 2858	2802	AUUAAGAA A UCACCUAC	645	GTAGGTGA GGCTAGCTACAACGA TTCTTAAT	2347
2811 UCACCUAC G UGCCGGAC 648 GTCCGGCA GGCTAGCTACAACGA GTAGGTGA 2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2818 CGUGCCGG A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA ACGTAGGT 2352 2821 GCCGGACU G UGGCUGUG 651 CACAGCCA GGCTAGCTACAACGA AGTCCGGC 2353 2824 GGACUGUG G CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA AGTCCGGC 2354 2827 CUGUGGCU G UGAAAAUG 653 CATTTTCA GGCTAGCTACAACGA AGCCACAG 2355 2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTAGCTACAACGA ACCCACAG 2356 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTCACA 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCTACAACGA ATTTCAC 2357 2851 AGGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA CCCCTCTT 2358 2851 AGGGGGCC A CGGCCAGC 658 CTCGCTGG GGCTAGCTACAACGA CCCCTCTT 2358 2858 CACGGCCAG G CCAAGCGA 659 TGTACTCG GGCTAGCTACAACGA CGCCCCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCCC 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGG 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA TCGCTGG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TCGCTGG 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA TCTCCTG 2364 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTATG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTACCT 2369 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA TTATTACT 2369 24900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA CAAGATT 2369 24900 CUUGACCC A CAUUGGCC 669 GTGGCCAA GGCTAGCTACAACGA CAAGATT 2369 24900 CUUGACCC A CAUUGGCC 669 GTGGCCAA GGCTAGCTACAACGA GGGCTAAG 2370 24900 CUUGACCC A CAUUGGCC 669 GTGGCCAA GGCTAGCTACAACGA CAAGATT 2369 2400 CUUGACCC A CAUUGGCC 669 GTGGCCAA GGCTAGCTACAACGA GAGCTACAACGA 2370 24900 CUUGACCC A CAUUGGCC 669 GTGGCCAAG GGCTAGCTACAACGA GAGCAATG 2370 24900 CUUGACCCA A CAUUGGCC 669 GTGGCCAAG GGCTAGCTACAACGA GAGCAATG 2370	2805	AAGAAAUC A CCUACGUG	646	CACGTAGG GGCTAGCTACAACGA GATTTCTT	2348
2813 ACCUACGU G CCGGACUG 649 CAGTCCGG GGCTAGCTACAACGA ACGTAGGT 2351 2818 CGUGCCGG A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA CCGGCACG 2352 2821 GCCGGACU G UGGCUGUG 651 CACAGCCA GGCTAGCTACAACGA AGTCCGGC 2353 2824 GGACUGUG G CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA CACAGTCC 2354 2827 CUGUGGCU G UGAAAAUG 653 CATTTTCA GGCTAGCTACAACGA AGCCACAG 2355 2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTAGCTACAACGA TTTCACAG 2356 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTTCAC 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCTACAACGA ATTTTCAC 2357 2851 AGGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA GGCCCCCT 2359 2854 GGGCACG G CCAGCAGC 657 GCTGGCCG GGCTAGCTACAACGA GGCCCCCT 2369 2858 CACGGCCA G CCAGCAGC 659 TGTACTCG GGCTAGCTACAACGA GGCCCCCT 2360 2858 CACGGCCA G CAGCAGA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGC 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2864 CAGCCAGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2865 AGGUCUG A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA TCGCTGGC 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA TTTGTACT 2364 2878 CUCUGAUG A CUAGACUA 664 TAGCTCAG GGCTAGCTACAACGA CAGACTT 2365 2878 CUCUGAUG A CUAGACUA 664 TAGCTCAG GGCTAGCTACAACGA CAGACTT 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGACG CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGACTA 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TCAGACA CAGACTT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGCTAAC 2901 UGACCCCA A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GGGCTAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA CAATGTGG 2370 2900 CUUGACCC A CAUUGGC 669 GTGGCCAA GGCTAAGCTACAACGA CAATGTGG 2370 2900 CUUGACCC A CAUUGGC 669 GTGGCCAA GGCTAACCAACGA CAATGTGG 2372	2809	AAUCACCU A CGUGCCGG	647	CCGGCACG GGCTAGCTACAACGA AGGTGATT	2349
2818 CGUGCCGG A CUGUGGCU 650 AGCCACAG GGCTAGCTACAACGA CCGGCACG 2352 2821 GCCGGACU G UGGCUGUG 651 CACAGCCA GGCTAGCTACAACGA AGTCCGGC 2353 2824 GGACUGUG G CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA CACAGTCC 2354 2827 CUGUGGCU G UGAAAAUG 653 CATTTTCA GGCTAGCTACAACGA AGCCACAG 2355 2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTACCAACGA TTTCACA 2356 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTTCAC 2357 2848 AAGAGGGG G CCACGGC 656 GGCCGTGG GGCTAGCTACAACGA CCCCCTTT 2358 2851 AGGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA CCCCCTT 2359 2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCC 2362 2864 CAGCGAGA G UACAAAGC 650 GCTTTGTA GGCTAGCTACAACGA TCGCTGC 2362 2864 CAGCAGAU A CAAAGCUC 661 GACTTTGTA GGCTAGCTACAACGA TTTTACT 2363	2811	UCACCUAC G UGCCGGAC	648	GTCCGGCA GGCTAGCTACAACGA GTAGGTGA	2350
2821 GCCGGACU G UGGCUGUG 651 CACAGCCA GGCTAGCTACAACGA AGTCCGGC 2353 2824 GGACUGUG G CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA CACAGTCC 2354 2827 CUGUGGCU G UGAAAAUG 653 CATTTCA GGCTAGCTACAACGA AGCCACAG 2355 2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTAGCTACAACGA TTTCACAG 2356 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTTCAC 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCTACAACGA CCCCCTT 2358 2851 AGGGGGCC A CGGCCAGC 657 GCTGGCG GGCTAGCTACAACGA CCCCCTT 2359 2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGC 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGCC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUAGG 662 CATCAGTA GGCTACAACGA CAGACTT 2365	2813	ACCUACGU G CCGGACUG	649	CAGTCCGG GGCTAGCTACAACGA ACGTAGGT	2351
2824 GGACUGUG G CUGUGAAA 652 TTTCACAG GGCTAGCTACAACGA CACAGTCC 2354 2827 CUGUGGCU G UGAAAAUG 653 CATTTTCA GGCTAGCTACAACGA AGCCACAG 2355 2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTAGCTACAACGA TTTCACAG 2356 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTTCAC 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTG GGCTAGCTACAACGA CCCCTCTT 2358 2851 AGGGGCC A CGGCCAGC 657 GCTGGCG GGCTAGCTACAACGA CCCCCTT 2359 2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGTG 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA TCTGCTGC 2363 2875 AAGCUCUG A UGACUGAG 662 CATCAGAG GGCTAGCTACAACGA TCTGTACT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG CATCAG	2818	CGUGCCGG A CUGUGGCU	650	AGCCACAG GGCTAGCTACAACGA CCGGCACG	2352
2827 CUGUGGCU G UGAAAAUG 653 CATTTCA GGCTAGCTACAACGA AGCCACAG 2355 2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTAGCTACAACGA TTTCACAG 2356 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTCACA 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCTACAACGA ACCCCTCTT 2358 2851 AGGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA CCCCTCTT 2358 2854 GGGCCACG G CCACGGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGT 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCACAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GGGTCAAC 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GAACTTG 2373	2821	GCCGGACU G UGGCUGUG	651	CACAGCCA GGCTAGCTACAACGA AGTCCGGC	2353
2833 CUGUGAAA A UGCUGAAA 654 TTTCAGCA GGCTAGCTACAACGA TTTCACAG 2356 2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTCAC 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTG GGCTAGCTACAACGA CCCTCTT 2358 2851 AGGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA GCCCCCT 2359 2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA CGTGGCCC 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TGGCCGTG 2362 2864 CAGCGAGU A CAAAGCU 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TCAGTCAT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 669 GTGGCCAA GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA CAATGTGG 2372	2824	GGACUGUG G CUGUGAAA	652	TTTCACAG GGCTAGCTACAACGA CACAGTCC	2354
2835 GUGAAAAU G CUGAAAGA 655 TCTTTCAG GGCTAGCTACAACGA ATTTCAC 2357 2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCTACAACGA CCCCTCTT 2358 2851 AGGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA GGCCCCCT 2359 2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGTG 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCAACGA TCGCTGGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA ACTCGCTG 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TCAGTCAT 2369 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAC 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA CAATGTGG 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2827	CUGUGGCU G UGAAAAUG	653	CATTITCA GGCTAGCTACAACGA AGCCACAG	2355
2848 AAGAGGGG G CCACGGCC 656 GGCCGTGG GGCTAGCTACAACGA CCCCTCTT 2358 2851 AGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA CCCCCTCT 2359 2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGTG 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA ACTCGCTG 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA CAATGTGG 2372	2833	CUGUGAAA A UGCUGAAA	654	TTTCAGCA GGCTAGCTACAACGA TTTCACAG	2356
2851 AGGGGGCC A CGGCCAGC 657 GCTGGCCG GGCTAGCTACAACGA GGCCCCT 2359 2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGTG 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA ACTCGCTG 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CAUUGAA 671 TCAGATGG GGCTAGCTACAACGA GACATGTGG 2372	2835	GUGAAAAU G CUGAAAGA	655	TCTTTCAG GGCTAGCTACAACGA ATTTTCAC	2357
2854 GGGCCACG G CCAGCGAG 658 CTCGCTGG GGCTAGCTACAACGA CGTGGCCC 2360 2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGTG 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GACCAATG 2373	2848	AAGAGGGG G CCACGGCC	656	GGCCGTGG GGCTAGCTACAACGA CCCCTCTT	2358
2858 CACGGCCA G CGAGUACA 659 TGTACTCG GGCTAGCTACAACGA TGGCCGTG 2361 2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2851		657	GCTGGCCG GGCTAGCTACAACGA GGCCCCCT	2359
2862 GCCAGCGA G UACAAAGC 660 GCTTTGTA GGCTAGCTACAACGA TCGCTGGC 2362 2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2854	GGGCCACG G CCAGCGAG	658	CTCGCTGG GGCTAGCTACAACGA CGTGGCCC	2360
2864 CAGCGAGU A CAAAGCUC 661 GAGCTTTG GGCTAGCTACAACGA ACTCGCTG 2363 2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2858	CACGGCCA G CGAGUACA	659	TGTACTCG GGCTAGCTACAACGA TGGCCGTG	2361
2869 AGUACAAA G CUCUGAUG 662 CATCAGAG GGCTAGCTACAACGA TTTGTACT 2364 2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2862	GCCAGCGA G UACAAAGC	660	GCTTTGTA GGCTAGCTACAACGA TCGCTGGC	2362
2875 AAGCUCUG A UGACUGAG 663 CTCAGTCA GGCTAGCTACAACGA CAGAGCTT 2365 2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2864	CAGCGAGU A CAAAGCUC	661	GAGCTTTG GGCTAGCTACAACGA ACTCGCTG	2363
2878 CUCUGAUG A CUGAGCUA 664 TAGCTCAG GGCTAGCTACAACGA CATCAGAG 2366 2883 AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2869	AGUACAAA G CUCUGAUG	662	CATCAGAG GGCTAGCTACAACGA TTTGTACT	2364
AUGACUGA G CUAAAAAU 665 ATTTTTAG GGCTAGCTACAACGA TCAGTCAT 2367 2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2875	AAGCUCUG A UGACUGAG	663	CTCAGTCA GGCTAGCTACAACGA CAGAGCTT	2365
2890 AGCUAAAA A UCUUGACC 666 GGTCAAGA GGCTAGCTACAACGA TTTTAGCT 2368 2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2878	CUCUGAUG A CUGAGCUA	664	TAGCTCAG GGCTAGCTACAACGA CATCAGAG	2366
2896 AAAUCUUG A CCCACAUU 667 AATGTGGG GGCTAGCTACAACGA CAAGATTT 2369 2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2883	AUGACUGA G CUAAAAAU	665	ATTTTAG GGCTAGCTACAACGA TCAGTCAT	2367
2900 CUUGACCC A CAUUGGCC 668 GGCCAATG GGCTAGCTACAACGA GGGTCAAG 2370 2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2890	AGCUAAAA A UCUUGACC	666	GGTCAAGA GGCTAGCTACAACGA TTTTAGCT	2368
2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2896	AAAUCUUG A CCCACAUU	667	AATGTGGG GGCTAGCTACAACGA CAAGATTT	2369
2902 UGACCCAC A UUGGCCAC 669 GTGGCCAA GGCTAGCTACAACGA GTGGGTCA 2371 2906 CCACAUUG G CCACCAUC 670 GATGGTGG GGCTAGCTACAACGA CAATGTGG 2372 2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2900	CUUGACCC A CAUUGGCC	668	GGCCAATG GGCTAGCTACAACGA GGGTCAAG	2370
2909 CAUUGGCC A CCAUCUGA 671 TCAGATGG GGCTAGCTACAACGA GGCCAATG 2373	2902	UGACCCAC A UUGGCCAC	669		2371
	2906	CCACAUUG G CCACCAUC	670	GATGGTGG GGCTAGCTACAACGA CAATGTGG	2372
	2909	CAUUGGCC A CCAUCUGA	671	TCAGATGG GGCTAGCTACAACGA GGCCAATG	2373
	2912	UGGCCACC A UCUGAACG	672	CGTTCAGA GGCTAGCTACAACGA GGTGGCCA	2374

5010	GGTTGT - GGTTGGTTT		THE COLOR COMPACED AS A COLOR TOP CAME	2275
2918	CCAUCUGA A CGUGGUUA	673	TAACCACG GGCTAGCTACAACGA TCAGATGG	
2920	AUCUGAAC G UGGUUAAC	674	GTTAACCA GGCTAGCTACAACGA GTTCAGAT	2376
2923	UGAACGUG G UUAACCUG	675	CAGGTTAA GGCTAGCTACAACGA CACGTTCA	2377
2927	CGUGGUUA A CCUGCUGG	676	CCAGCAGG GGCTAGCTACAACGA TAACCACG	2378
2931	GUUAACCU G CUGGGAGC	677	GCTCCCAG GGCTAGCTACAACGA AGGTTAAC	2379
2938	UGCUGGGA G CCUGCACC	678	GGTGCAGG GGCTAGCTACAACGA TCCCAGCA	2380
2942	GGGAGCCU G CACCAAGC	679	GCTTGGTG GGCTAGCTACAACGA AGGCTCCC	2381
2944	GAGCCUGC A CCAAGCAA	680	TTGCTTGG GGCTAGCTACAACGA GCAGGCTC	2382
2949	UGCACCAA G CAAGGAGG	681	CCTCCTTG GGCTAGCTACAACGA TTGGTGCA	2383
2958	CAAGGAGG G CCUCUGAU	682	ATCAGAGG GGCTAGCTACAACGA CCTCCTTG	2384
2965	GGCCUCUG A UGGUGAUU	683	AATCACCA GGCTAGCTACAACGA CAGAGGCC	2385
2968	CUCUGAUG G UGAUUGUU	684	AACAATCA GGCTAGCTACAACGA CATCAGAG	2386
2971	UGAUGGUG A UUGUUGAA	685	TTCAACAA GGCTAGCTACAACGA CACCATCA	2387
2974	UGGUGAUU G UUGAAUAC	686	GTATTCAA GGCTAGCTACAACGA AATCACCA	2388
2979	AUUGUUGA A UACUGCAA	687	TTGCAGTA GGCTAGCTACAACGA TCAACAAT	2389
2981	UGUUGAAU A CUGCAAAU	688	ATTTGCAG GGCTAGCTACAACGA ATTCAACA	2390
2984	UGAAUACU G CAAAUAUG	689	CATATTIG GGCTAGCTACAACGA AGTATTCA	2391
2988	UACUGCAA A UAUGGAAA	690	TTTCCATA GGCTAGCTACAACGA TTGCAGTA GATTTCCA GGCTAGCTACAACGA ATTTGCAG	2392
2990	CUGCAAAU A UGGAAAUC	691	TGGAGAGA GGCTAGCTACAACGA TTCCATAT	2393
2996	AUAUGGAA A CUDGGUGA	692		2394
3005	UCUCUCCA A CUACCUCA	693 694	TGAGGTAG GGCTAGCTACAACGA TGGAGAGA	2395
3008	CUCCAACU A CCUCAAGA CCUCAAGA G CAAACGUG		TCTTGAGG GGCTAGCTACAACGA AGTTGGAG	
3017	AAGAGCAA A CGUGACUU	695	CACGTTTG GGCTAGCTACAACGA TCTTGAGG	2397
3021		696	AAGTCACG GGCTAGCTACAACGA CTTTTCTTT	2398
3023	GAGCAAAC G UGACUUAU	697	ATAAGTCA GGCTAGCTACAACGA GTTTGCTC	2399
3026	CAAACGUG A CUUAUUUU	698	AAAATAAG GGCTAGCTACAACGA CACGTTTG AGAAAAAA GGCTAGCTACAACGA AAGTCACG	2400
3030	CGUGACUU A UUUUUUCU	700	CATCCTTG GGCTAGCTACAACGA TGAGAAAA	2402
3041	UUUUCUCA A CAAGGAUG CAACAAGG A UGCAGCAC	701	GTGCTGCA GGCTAGCTACAACGA CCTTGTTG	2403
3047	ACAAGGAU G CAGCACUA	702	TAGTGCTG GGCTAGCTACAACGA ATCCTTGT	2404
3052	AGGAUGCA G CACUACAC	702	GTGTAGTG GGCTAGCTACAACGA TGCATCCT	2405
3054	GAUGCAGC A CUACACAU	704	ATGTGTAG GGCTAGCTACAACGA GCTGCATC	2406
3057	GCAGCACU A CACAUGGA	705	TCCATGTG GGCTAGCTACAACGA AGTGCTGC	2407
3059	AGCACUAC A CAUGGAGC	706	GCTCCATG GGCTAGCTACAACGA GTAGTGCT	2408
3061	CACUACAC A UGGAGCCU	707	AGGCTCCA GGCTAGCTACAACGA GTGTAGTG	2409
3066	CACAUGGA G CCUAAGAA	708	TTCTTAGG GGCTAGCTACAACGA TCCATGTG	2410
3082	AAGAAAAA A UGGAGCCA	709	TGGCTCCA GGCTAGCTACAACGA TTTTTCTT	2411
3082	AAAAUGGA G CCAGGCCU	710	AGGCCTGG GGCTAGCTACAACGA TCCATTTT	2412
3092	GGAGCCAG G CCUGGAAC	711	GTTCCAGG GGCTAGCTACAACGA CTGGCTCC	2413
3099	GGCCUGGA A CAAGGCAA	712	TTGCCTTG GGCTAGCTACAACGA TCCAGGCC	
3104	GGAACAAG G CAAGAAAC	713	GTTTCTTG GGCTAGCTACAACGA CTTGTTCC	2415
3111	GGCAAGAA A CCAAGACU	714	AGTCTTGG GGCTAGCTACAACGA TTCTTGCC	2416
3117	AAACCAAG A CUAGAUAG	715	CTATCTAG GGCTAGCTACAACGA CTTGGTTT	2417
3122	AAGACUAG A UAGCGUCA	716	TGACGCTA GGCTAGCTACAACGA CTAGTCTT	2418
3125	ACUAGAUA G CGUCACCA	717	TGGTGACG GGCTAGCTACAACGA TATCTAGT	
3127	UAGAUAGC G UCACCAGC	718	GCTGGTGA GGCTAGCTACAACGA GCTATCTA	2420
3130	AUAGCGUC A CCAGCAGC	719	GCTGCTGG GGCTAGCTACAACGA GACGCTAT	2421
3134	CGUCACCA G CAGCGAAA	720	TTTCGCTG GGCTAGCTACAACGA TGGTGACG	2422
3137	CACCAGCA G CGAAAGCU	721	AGCTTTCG GGCTAGCTACAACGA TGCTGGTG	2423
3143	CAGCGAAA G CUUUGCGA	722	TCGCAAAG GGCTAGCTACAACGA TTTCGCTG	2424
3148	AAAGCUUU G CGAGCUCC	723	GGAGCTCG GGCTAGCTACAACGA AAAGCTTT	2425
3152	CUUUGCGA G CUCCGGCU	724	AGCCGGAG GGCTAGCTACAACGA TCGCAAAG	2426
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3158 GAGCUCCO G CUUUCAGG 725 CCTGARAG GCTAGCTACAAGGA COGAGCTC 2427 3170 LOCAGRAGA U ALARAGUU 726 GACTTATA GGCTAGCTACAACGA TCTCCTCRA 243 3170 LOCAGRAGA U AUGUGAGGU 727 CACTCAGA GGCTAGCTACAACGA TCTCCTGA 243 3182 AAGUCUG G UGAUGUU 728 CAACATCA GGCTAGCTACAACGA TCAGACTT 2430 3185 LOCUGAGUG A UGUUGAGGA 729 CCTCAACA GGCTAGCTACAACGA TCAGACTT 2430 3187 UGAGUGAU G UGAGGAA 730 TTCCTCAA GGCTAGCTACAACGA ACCTCAGA 2431 3187 UGAGUGAU G UGAGGAA 731 CGTCAGAA GGCTAGCTACAACGA ACCTCAGA 2431 3203 GAGGAGG A UUCUGACC 731 CGTCAGAA GGCTAGCTACAACGA ACCTCCTCT 2432 3218 CGUUUCU A CAGGUUCU 732 AGAAACC GGCTAGCTACAACGA CAGAATCC 2434 3218 CGUUUCU A CAGGAGC 733 TTCTAGAA GGCTAGCTACAACGA CAGAATCC 2434 3218 CGUUUCU A CAAGGAGC 737 GCTCCTT GGCTTAGCTACAACGA CAGAACCC 2435 3229 AGGACCC A UCACUAUG 736 CATAGTGA GGCTAGCTACAACGA CAGAACCC 2435 3222 AGCCCAUC A CUCACUAUG 736 CATAGTGA GGCTAGCTACAACGA GACTGCCT 2438 3232 CACCCAUC A CUCACUAUG 736 CATAGTGA GGCTAGCTACAACGA GATGGCTCT 2439 3232 CACCCAUC A CUCACUAUG 736 CATAGTGA GGCTAGCTACAACGA GATGGCTC 2439 3232 CAGCCAUC A CUCACUAUG 736 CATAGTGA GGCTAGCTACAACGA AGTGCTCT 2439 3232 AGGACCC A UCACUAUG 736 CATAGTGA GGCTAGCTACAACGA AGTGCTCT 2439 3232 AGGCCCAU A UCGAACAU 738 ATCTTCCA GGCTAGCTACAACGA AGTGCTCT 2440 3242 UAUGAGAG R UCCUAUUC 741 GAAACAG GGCTAGCTACAACGA AGTGCTCCT 2440 3247 AAGAUCUG A UUUCUAC 740 GTAAGAAA GGCTAGCTACAACGA AGTAGTAC 2440 3254 GAUUUCUAA G UGUCAUC 741 GAAACAG GGCTAGCTACAACGA CAGATCT 2442 3255 UUCUAACA G UUUCUACA 740 GTAAGAAA GGCTAGCTACAACGA CAGATCT 2443 3256 UUCUAACA G UUUCUACA 740 GTAAGAAA GGCTAGCTACAACGA CAGATCT 2443 3257 UUCUAACA G UUUCUACA 740 GTAAGAAA GGCTAGCTACAACGA CAGATCT 2443 3265 UUCAACGA G CAGAGGC 744 GCCCTCTG GGCTAGCTACAACGA CAGAACC 2443 3277 CCAGAGGC CAUGAGGU 745 CACCCAGGC CATAGCTACAACGA CAGAACC 2443 3277 CCAGAGGC CAUGAGGU 745 CACCCAGGC GGCTAGCTACAACGA CACTTGAA 2443 3277 CCAGAGGC CAUGAGGU 746 GAACCCC GGCTAGCTACAACGA CACTTGAA 2443 3277 CCAGAGAG CAUGAGAC 747 GACAGAAG CACCACACA CACCACAC 2449 3288 GAGCUACA G UUCUCCAG 746 CACCACGAGGC CACCACAC CACCACAC 2449 3390 UUCAAGAA CACCACGAGC 744 GCCCCCG					
3176	3158	GAGCUCCG G CUUUCAGG	725		2427
3182	3170	UCAGGAAG A UAAAAGUC	726	GACTTTTA GGCTAGCTACAACGA CTTCCTGA	2428
1855	3176	AGAUAAAA G UCUGAGUG	727	CACTCAGA GGCTAGCTACAACGA TTTTATCT	2429
3187	3182	AAGUCUGA G UGAUGUUG	728	CAACATCA GGCTAGCTACAACGA TCAGACTT	2430
3203 AGAGGAGG A UUCUGACG 731 CGTCAGAA GGCTAGCTACAACGA CCTCCTCT 2433 3209 GABAUCUG A CGGUUUCU 732 AGAAACG GGCTAGCTACACGA CAGARTCC 2434 3212 GUUUCUGAC G UUUCUACA 733 TSTAGAAA GGCTAGCAACGA GGCTAGCAA 2436 3218 CGGUUUCU A CAGGGGC 734 GCTCCTTG GGCTAGCTACACGA AGAAACCC 2436 3225 UACAAGGAG C C UACUUGUA 736 CATAGTGA GGCTAGCTACACGA GGGTCCT 2438 3229 AGGCCAUC A CUAUUGAA 736 CATAGTGAGCAACGA GGGTCCT 2439 3232 AGCCAUC A CUAUGAA 737 TTCCATAG GGCTAGCTACACGA GGTTGCTAT 2440 3242 LUAGGAAA AUUGAGAC 740 GTAAGAAA GGCTAGCTACACGA AGTAGTC 2442 3247 AAGAUUCUU A CAGUUUUC 740 GTAAGAAA GGCTAGCTACACGA CTGCATAC 2442 3257 HUCUUACA G UUUUCAA 742 CTTGAAAA GGCTAGCTACAACGA TGAAAAC 2444 3268 HUUUCAAG 743 TCTGGCCA GGCTAGCTACAACGA TGAAAAC 2445 3277 GCCAGAGG 742 TTGAAAA GCTAGCTACAACGA TCTCA	3185	UCUGAGUG A UGUUGAGG	729	CCTCAACA GGCTAGCTACAACGA CACTCAGA	2431
3219 GGAUUCUG A CGGUUUCU 732 AGANACCG GGCTAGCTACAACGA CAGAATCC 2434 3212 UUCUGACG G UUUCUACA 733 TOTAGAAA GGCTAGCTACAACGA CGTCACAA 2435 3218 CGGUUUCUA CAAGAGAGC 734 GCTCCTTG GGCTAGCTACAACGA AGANACCG 2436 3225 UACAAGGA G CCCAUCAC 735 GTGATGGG GGCTAGCTACAACGA AGANACCG 2437 3229 AGGAGCCC A UCACUAUG 736 CATAGTGA GGCTAGCTACACGA GGCTCCT 2438 3222 AGCCCAUCA CUAUGAAA 737 TOTCCATAG GGCTAGCTACAACGA GATGGGCT 2439 3235 CCAUCACU A UGGAAGAU 738 ATCTTCC GGCTAGCTACAACGA AGTGGTG 2440 3242 UAUGAGAAG A UCUGUUUC 741 GAAAACTG GGCTAGCTACAACGA AGTGGTG 2440 3247 AAGAUCUG A UUUCUUAC 740 GTAAGAAA GGCTAGCTACAACGA CAGACTT 2441 3254 GAUUUCUU CAGUUUUC 741 GAAAACTG GGCTAGCTACAACGA CAGACTT 2442 3255 GUUUCAA G UUGCCAGA 742 CTTGAAAA GGCTAGCTACAACGA CAGACTT 2442 3266 UUCAACU G UGCCAGA 743 TCTGGCCA GGCTAGCTACAACGA TGTAACAA 2445 3275 GGCCAGAG G CAUGAGAG 744 GCCTCTGG GGCTAGCTACAACGA TGTAACAA 2446 3275 GGCCAGAG G UUCUCCAC 746 GCTCCAG GGCTAGCTACAACGA CCCTCTGG 2447 3288 GAGUUCCU G UCUUCCAC 748 CTCGATG GGCTAGCTACAACGA CCCTCTGG 2447 3288 GAGUUCCU G UCUUCCAC 749 TGACAGAG GGCTAGCTACAACGA CCCTCTGG 2447 3288 GAGUUCCU G UCUUCCAC 749 TGACAGAG GGCTAGCTACAACGA TCCATCGC 2449 3300 UCCAGAAA G UGCAUCA 749 TGACAGGA GGCTAGCTACAACGA ACCTTCGA 2450 3304 GAAAGUG CAUUCAUCC 750 GATGAGAG GGCTAGCTACAACGA ACCTTCGA 2451 3304 GAAAGUG CAUUCAUCC 750 GATGAGAG GGCTAGCTACAACGA ACCTTCGA 2451 3304 GAAAGUG CAUUCAUCG 751 GCACGAG GGCTAGCTACAACGA ACCTTCGA 2451 3304 GAAAGUC AUCAUCGG 751 GCGCAGG GGCTAGCTACAACGA ACCTTCCA 2452 3314 UCAUCGG CAGGAGAC 755 GTCCCAG GGCTAGCTACAACGA ACTTTCCC 2453 3319 GGGACCUG CAGGAGAC 755 GTCCCAG GGCTAGCTACAACGA CAGATTC 2453 3322 ACCUGGCA CAGGAGAC 755 G	3187	UGAGUGAU G UUGAGGAA	730	TTCCTCAA GGCTAGCTACAACGA ATCACTCA	2432
3212 UUCUGACG G UUUCUAC 733 TGTAGARA GGCTACAACAC CGTCAGAA 2435 3218 COGUUUCU A CAAGGAC 734 GCTCCTTG GGCTACCACCACA AGAACCG 2436 3225 UACAAGGA G CCCAUCAC 735 GGRAGGTACCTACAACGA TCCTTGTA 2437 3229 AGGAGCC A UCACUAUG 736 CATAGTGA GCCTACCACCA G GGGCTCC 2438 3232 AGCCCAUC A CURUGGAA 737 TTCCATAG GGCTACCACCAC AGGACTCACACCA CAGGACCACACCA CATAGTCA GGCTACCACCACA AGGACTCACACCA 3242 UAUGGAGA A UCUGAUUU 739 AAATCAGA GGCTACCACCACA CAGTACTACACCA CACACCT U A CAGUUUCU 740 GTAAGAAA GGCTACCACCACA CACTACACACA 2441 3247 AGAUUCUCU A CAGUUUCA 741 GAAAACTG GGCTACCACCACA AGGACTT 2442 3257 UUCUUACA G UUUCUACA 742 CTTGAAAA GGCTACCACCACA TACAACACA CACTACACACACACACAC	3203	AGAGGAGG A UUCUGACG	731	CGTCAGAA GGCTAGCTACAACGA CCTCCTCT	2433
3218 CGGUUUCU A CAAGGAGC 734 GCTCCTTG GGCTACACACA AGAACAGA AGAACCG 2436 3225 UACAAGGA G CCCAUCAC 735 GTGATGGG GGCTACCACAGA TCCTTGTA 2437 3229 AGAGACCA C UACACUAG 736 CATAGTGA GGCTACCAGA GGGTCCC 2439 3232 AGCCCAUC A CUAUGGAA 737 TTCCATAG GGCTACAACGA GATGGCT 2449 3235 CCAUCACU A UGGAAGAU 738 ATCTTCCA GGCTACAACGA AGTGCTACA CTTCCATA 2440 3242 UAUGGAAG A UCUGAUUU 739 AAATCAGA GGCTACGCTACAACGA CTTCCATA 2441 3247 AGAGUUCU A CAGUUUC 741 GAAAACTG GGCTACGCTACAACGA AGAAAATC 2442 3257 UUCUACAG G UUUUCAAG 742 CTTGAAAA GGCTACCACGAACGA TGTAAAAC 2443 3265 GUUUCAA G UGCCAGA 743 TCTGGCA GGCTACGTACAACGA CTTGAAAAC 2446 3275 GGCCAGGG G CAUGGAGU 744 GCCTCAGG GGCTACGTACAACGA CTCTGAC 2447 3276 GGCAGGGA G UUCCUCCA 744 GCCTCAGG GGCTACAACGA CTCTGGCC 2447 3277 CCAGAGAGC 747 GACAGGAA GGCTACAACGA TCCAACGA TCCAACGA <t< td=""><td>3209</td><td>GGAUUCUG A CGGUUUCU</td><td>732</td><td>AGAAACCG GGCTAGCTACAACGA CAGAATCC</td><td>2434</td></t<>	3209	GGAUUCUG A CGGUUUCU	732	AGAAACCG GGCTAGCTACAACGA CAGAATCC	2434
3225	3212	UUCUGACG G UUUCUACA	733	TGTAGAAA GGCTAGCTACAACGA CGTCAGAA	2435
3229 AGGAGCCC A UCACUAUG 736 CATAGTGA GGCTACAACGA GGGCTCCT 2438 3232 AGCCCAUC A CUAUGGAA 737 TTCCATAG GGCTAGCTACAACGA GATGGGCT 2439 3235 CCAUCACU A UGGAAGAU 738 ATCTTCCA GGCTAGCTACAACGA GATGGTGT 2440 3242 UAUGGAAGA A UUUCUUAC 740 GTAAGAAA GGCTAGCTACAACGA CAGAACTA 2441 3247 AAGAUUCUU A CAGUUUCU 741 GAAAACTG GGCTAGCTACAACGA AAGAART 2442 3254 GUUUUCAA G UUUUCAAG 742 CTTGAAAA GGCTACAACGA AAGAART 2443 3257 UUCUUACA G UUUUCAAG 742 CTTGAAAA GGCTACAACGA TATAAACAGA ATTAAACAGA 2444 3268 UUCAAGUG G CCAGAGGC 744 GCCTCTGG GGCTACACACGA TTGAACGA TTGAACGA 2445 3277 CCAGAGAG G CAUGGAGC 744 GCTCTGG GGCTACACAGA CACTTGAC 2446 3288 GACAUGAG G UCUCUCAC 746 GAACTCCA GGCTACCTACAGAA GACACCT 2449 3288 GAGUUCU G UCUCCACA 748 CTGAACAAGA GACACAA 741 TTCTGAACAGA ACACAACCAA 742 TTCTGAACAAACAAACAAACAAACAAAAAAAAAAAAAAA	3218	CGGUUUCU A CAAGGAGC	734	GCTCCTTG GGCTAGCTACAACGA AGAAACCG	2436
3232 AGCCCAUC A CUAUGGAA 737 TTCCATAG GGCTAGCTACAGGA GATGGGCT 2449 3235 CCAUCACU A UGGAACAU 738 ATCTTCCA GGCTAGCTACAACGA AGTGATGG 2440 3242 UAUGGAAG A UCUGAUUU 739 AAATCAGA GGCTAGCTACAACGA CTTCCATA 2441 3247 AACAUCUG A UUUCUUAC 740 GTAACAAA GGCTAGCTACAACGA CAGATCTT 2442 2254 GAUUUCUA G UUUUCAGA 742 CTTGAAAA GGCTAGCTACAACGA AGAAAAC 2443 3257 UUCUUACA G UUUUCAGA 742 CTTGAAAA GGCTAGCTACAACGA TGTAAGAAC 2444 3268 UUCAAGUG G CAGAGGC 744 GCCTCTGG GGCTAGCTACAACGA CTTGAAA 2446 3275 GGCCACAG G CAUGGAGU 745 ACTCCATG GGCTAGCTACAACGA CTCTGCA 2447 3276 GGCCACAG G CAUGGAGU 745 ACTCCATG GGCTAGCTACAACGA CTCTGCA 2446 3277 CCAGAGGA G UUCCUGUC 746 GAACTCCA GGCTAGCTACAACGA CTCTTGCC 2447 3288 GGCCACAG G UCCUUCCAG 748 CTGGAGAG GGCTACCAACGA AGGAACTC 2450 3300 UCCAGAAA G UGCAUUCA 749 TGAATGCA GGCTACCTACAACGA ATTCTGC 2453 3304 GAAAGUG A UUCAUCGG 751 CCGATGAA GGCTACCTACAACGA CACTTTC 2453 3314	3225	UACAAGGA G CCCAUCAC	735	GTGATGGG GGCTAGCTACAACGA TCCTTGTA	2437
3235	3229	AGGAGCCC A UCACUAUG	736	CATAGTGA GGCTAGCTACAACGA GGGCTCCT	2438
3242 UAUGGAAG A UCUGAUUU 739 AAATCAGA GGCTAGCTACAACGA CTTCCATA 2441 3247 AAGAUCUG A UUUCUUAC 740 GTAAGAAA GGCTAGCTACAACGA CAGATCTT 2442 3254 GAUUUCUU A CAGUUUUC 741 GAAAACTG GGCTAGCTACAACGA AAGAATC 2443 3257 UUCUUACA G UUUUCAAG 742 CTTGAAAA GGCTAGCTACAACGA TGTAAGAA 2444 3265 GUUUUCAA G UGGCCAGA 743 TCTGGCCA GGCTAGCTACAACGA TGTAAGAA 2445 3268 UUCAAGU G CAGAGGC 744 GCCTCTGG GGCTAGCTACAACGA CACTGGC 2447 3275 GGCCAGGA G CAUGAGU 746 GAACTCCA GGCTAGCTACAACGA CACTGGC 2447 3275 GGCAGGA G UCCUUCCAG 748 CTGCAGAG GGCTAGCTACAACGA CCTTGG 2448 3288 GAGUUCCU G UCCUCCAG 748 CTGGAAGA GGCTAGCTACAACGA AGAACTC 2450 3300 UCCAGAAAG G UCCAUCA 749 TGAAGAG GGCTAGCTACAACGA ACTTCTGG 2451 3301 GAAAGUGC A UCCAUCAG 751 CGATGAACA GGCTAGCTACAACGA ACTTCTCG 2452 3304 GAAAGUCC A UCCAUCAG 751 CCGATGACTACAACGA ACTTCTCA 2452 <td>3232</td> <td>AGCCCAUC A CUAUGGAA</td> <td>737</td> <td>TTCCATAG GGCTAGCTACAACGA GATGGGCT</td> <td>2439</td>	3232	AGCCCAUC A CUAUGGAA	737	TTCCATAG GGCTAGCTACAACGA GATGGGCT	2439
3247 AAGAUCUG A UUUCUUAC 740 GTAAGAAA GGCTAGCTACAACGA CAGATCTT 2442 3254 GAUUUCUU A CAGUUUUC 741 GAAAACTG GGCTAGCTACAACGA AAGAAATC 2443 3257 UUCUUACA G UUUUCAAG 742 CTTGAAAA GGCTAGCTACAACGA TGTAAAGA 2444 3265 GUUUUCAA G UGGCCAGA 743 TCTGGCCA GGCTAGCTACAACGA CACTTGAA 2445 3268 UUCAAGUG G CAGAGGC 744 GCCTCTGG GGCTAGCTACAACGA CACTTGAA 2446 3275 GGCCAGAG G CAGGGUUC 746 ACTCCATG GGCTAGCTACAACGA CACTTGGC 2447 3277 CCAGAGGC A UGGAGUUC 746 GACAGGAA GGCTAGCTACAACGA CTCCATGC 2448 3282 GGCAUGGA G UUCCUCAG 748 CTGGAGAA GGCTAGCTACAACGA ACCATTCTC 2449 3288 GAGUUCCU G UCUUCAG 748 CTGGAGAA GGCTAGCTACAACGA ACTTCTC 2450 3300 UCCAGAAA G UCCUUCAC 750 GATGAATG AGCAAACAA ACTTCTC 2452 3304 GAAAGUG C AUUCAUCGG 751 CCGATGAA GGCTAGCTACAACGA ACTTCTC 2452 3304 GAAAGUGC A UUCAUCGG 752 GGTCAGCTACAACGA CACCACCACACACACACACACACACACACACA	3235	CCAUCACU A UGGAAGAU	738	ATCTTCCA GGCTAGCTACAACGA AGTGATGG	2440
3254 GAUUUUU A CAGUUUUC 741 GAAAACTG GGCTAGCTACAACGA AAGAATC 2443 3257 UUCUUACA G UUUUCAAG 742 CTTGAAAA GGCTAGCTACAACGA TGTAAGAA 2444 3265 GUUUCAA G UGGCCAGA 743 TCTGGCCA GGCTAGCTACAACGA TTGAAAAC 2445 3268 UUCAAGUG G CCAGAGGC 744 GCCTCTGG GGCTAGCTACAACGA CTCTGGC 2447 3275 GGCCAGAG G CAUGAGUU 745 ACTCCAT GGCTAGCTACAACGA CTCTGGC 2447 3277 CCAGAGG G UUCCUGUC 747 GACAGGAA GGCTAGCTACAACGA CCCTGGC 2449 3288 GAGUUCCU G UCUUCAG 748 CTGGAAGA GGCTAGCTACAACGA TCCATGC 2449 3300 UCCAGAAA G UGCAUUCA 749 TGAATGCA GGCTAGCTACAACGA TTCTTGQ 2451 3304 GAAGUGC A UUCAUCAG 750 GATGAATG GGCTAGCTACAACGA ACTTTCTQ 2453 3304 GAAGUGC A UUCAUCAG 751 GATGAATG GGCTAGCTACAACGA ACTTTCTQ 2453 3308 GUGCAUUC A UCGGGAC 752 GGTCCCGA GGCTAGCTACAACGA ACTTTCTC 2453 3314 UCAUCAGGA 753 CTGCCAGG GGCTAGCTACAACGA CAGGTCC 2455 <	3242	UAUGGAAG A UCUGAUUU	739	AAATCAGA GGCTAGCTACAACGA CTTCCATA	2441
3257 UUCUUACA G UUUUCAAG 742 CTTGAAAA GGCTAGCTACAACGA TGTAAGAA 2444 3265 GUUULCAA G UGGCCAGA 743 TCTGGCCA GGCTAGCTACAACGA TTGAAAAA 2445 3268 UUCAAGUG G CCAGAGGC 744 TCTGGCCA GGCTAGCTACAACGA CACTTGAA 2445 3275 GGCCAGAG G CAUGAGUC 745 ACTCCATG GGCTAGCTACAACGA CTCTGGC 2447 3277 CCAGAGGC A UGGAGUC 746 GAACTCCA GGCTAGCTACAACGA CTCTGGC 2448 3282 GGCAUGAG G UCCUUCCAG 747 GACAGGAA GGCTACAACGA ACGAACTC 2445 3300 UCCAGAAA G UCCUUCCAG 749 TGAATGCA GGCTAGCTACAACGA ACGAACTC 2452 3304 GAAAGUG C AUUCAUC 750 GATGAATG GGCTAGCTACAACGA ACTTTCTG 2452 3304 GAAAGUG A UUCAUCGG 751 CCGATGAA GGCTAGCTACAACGA GATTCCAACGA 2451 3304 GAAAGUG A CUCAGGAG 751 CCGATCAGAACAGA GAATGCACCAGAACACACAGA 2455 3314 UCAUCAGGA 752 GGTCACGTACAACGA GAATGCACACACACACACACACACACACACACACACACAC	3247	AAGAUCUG A UUUCUUAC	740	GTAAGAAA GGCTAGCTACAACGA CAGATCTT	2442
3265 GUUUUCAA G UGGCCAGA 743 TCTGGCCA GGCTAGCTACAACGA TTGAAAAC 2445 3268 UUCAAGUG G CAGAGGC 744 GCCTCTGG GGCTAGCTACAACGA CACTTGAA 2446 3275 GGCCAGAG G CAUGAGUU 745 ACTCCATG GGCTAGCTACAACGA CTCTGGC 2447 3277 CCCAGAGGC A UGGAGUUC 746 GAACTCCA GGCTAGCTACAACGA CCCTCTGG 2448 3282 GGCAUGGA G UUCUCCAG 748 CTGGAAGA GGCTAGCTACAACGA AGGAACC 2450 3300 UCCAGAAAG G UGCAUUCA 749 TGAATGCA GGCTACCAACGA ACGA TTCTGGA 2451 3301 UCCAGAAAG G UGCAUUCA 749 TGAATGCA GGCTACCAACGA ACTTCTCTGA 2452 3302 CAGAAAGU G CAUUCAUC 750 GATGAATG GGCTACCAACGA ACTTTCTC 2452 3304 GAAAGUGC A UUCAUCGG 751 CCGATGACA GGCTACCAACGA GCACTTTC 2453 3314 UCAUCGGA A CUCGGGAG 753 CTGCCGA GGCTAGCTACAACGA CCGATGA 2454 3314 UCAUCGGA C CAGCAGAA 754 CTCTCCGA GGCTACCAACGA CAGGTCCC 2456 3322 ACCUGGCA G CAGCAGAA 755 CTTCCCGA GGCTACCTAACGA CACGATCA <td>3254</td> <td>GAUUUCUU A CAGUUUUC</td> <td>741</td> <td>GAAAACTG GGCTAGCTACAACGA AAGAAATC</td> <td>2443</td>	3254	GAUUUCUU A CAGUUUUC	741	GAAAACTG GGCTAGCTACAACGA AAGAAATC	2443
3268 UUCAAGUG G CCAGAGGC 744 GCCTCTGG GGCTAGCTACAACGA CACTTGAA 2446 3275 GGCCAGAG G CAUGAGU 745 ACTCCATG GGCTAGCTACAACGA CTCTGGCC 2447 3277 CCAGAGG C A UGGAGUUC 746 GAACTCCA GGCTACCAACGA CTCTGGC 2448 3282 GGCAUGGA G UUCCUGUC 747 GACAGGAA GGCTACCAACGA TCCAACGA 2449 3288 GAGUUCCU G UCUUCCAG 748 CTGGAAGA GGCTACCAACGA ACGAA ACTTCTGA 2450 3300 UCCAGAAA G UCCAUCAC 749 TGAATGCA GGCTACCAACGA ACTTCTGA 2451 3304 GAAAGUC A UCCAUCACG 751 CCGATGAA GGCTACCAACGA ACTTCTG 2453 3304 GAAAGUC A UCCAUCAGG 752 GGTCCCGA GGCTACCAACGA ACTTCTC 2453 3314 UCAUCAGG A CUCGCAG 752 GGTCCCGA GGCTACCAACGA CACGATCCC 2454 3311 UCAUCAGG A CUCGGCAG 753 CTGCCAGG GGCTACCAACGA CACGATCCC 2455 3329 AGCCGAGAA A CAUCUUU 756 AAAGAACACGA CACGATCTCC 2456 3329 AGCAGAACA A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA TCTCCACAT 2461	3257	UUCUUACA G UUUUCAAG	742	CTTGAAAA GGCTAGCTACAACGA TGTAAGAA	2444
3275 GGCCAGAG G CAUGGAGU 745 ACTCCATG GGCTAGCACACGA CTCTGGCC 2447 3277 CCAGAGGC A UGGAGUUC 746 GAACTCCA GGCTAGCAACGA GCCTCTGG 2448 3282 GGCAUGGA G UUCCUGUC 747 GACAGGAA GGCTAGCTACAACGA TCCATGCC 2449 3288 GAGUUCCU G UCUUCCAG 748 CTGGAAGA GGCTAGCTACAACGA AGGAACTC 2450 3300 UCCAGAAAGU G CAUUCAUC 750 GATGAATG GGCTAGCTACAACGA ACTTTCTG 2451 3304 GAAAGUGC A UUCAUCGG 751 CGGATGAA GGCTAGCTACAACGA ACTTTCTG 2453 3304 GAAAGUGC A UUCAUCGG 751 CGGATGAGTACAACGA ACGA ACTTTCTG 2453 3304 GAAAGUGC A UUCAUCGG 751 CGGATGACTACAACGA GCAATCCA 2454 3314 UCAUCGGG A CUGGCAG 753 CTGCCAGG GGCTAGCTACAACGA CCCGATGA 2454 3319 GGGACCUG G CAGCAGAAC 753 CTGCCGG GGCTAGCTACAACGA CAGGTCCC 2456 3322 ACCUGGCA G CAGCAAAC 755 GTTTCTCG GGCTACAACGA TTCTGCT 2457 3321 CGAGAAAC A UUCUUUU T56 AAAGAAA GGCTAGCTACAACGA TTCTCGC 2458 <td< td=""><td>3265</td><td>GUUUUCAA G UGGCCAGA</td><td>743</td><td>TCTGGCCA GGCTAGCTACAACGA TTGAAAAC</td><td>2445</td></td<>	3265	GUUUUCAA G UGGCCAGA	743	TCTGGCCA GGCTAGCTACAACGA TTGAAAAC	2445
3277 CCAGAGGC A UGGAGUUC 746 GAACTCCA GGCTAGCTACAACGA GCCTCTGG 2448 3282 GGCAUGGA G UUCCUGUC 747 GACAGGAA GGCTAGCTACAACGA TCCATGCC 2449 3288 GAGUUCCU G UCUUCCAG 748 CTGGAAGA GGCTAGCTACAACGA AGGAACTC 2450 3300 UCCAGAAAG G UGCAUUCA 749 TGAATGAC GGCTAGCTACAACGA ACGTACTTCTGG 2451 3302 CAGAAAGU G CAUUCAUCG 750 GATGAATG GGCTAGCTACAACGA ACTTTCTGG 2451 3304 GAAAGUGC A UUCAUCGG 751 CCGATCAA GGCTAGCTACAACGA ACTTTCTCTG 2453 3308 GUGCAUUC A UCGGGACC 752 GGTCCCGA GGCTAGCTACAACGA GCACTTC 2453 3314 UCAUCGGG A CCUGGAGA 754 TCTCGCTG GGCTAGCTACAACGA CAGGTCC 2456 3322 ACCUGGCA G CGAGAAAC 755 GTTCTCG GGCTAGCTACAACGA TTCTCGCT 2456 3331 CGAGAAAC A UUCUUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2459 3331 CGAGAAAC A UUCUUUA 757 TAAAAGAA GGCTACAACGA TTCTCACA 2461 3347 AUCUGAGA A CAACGUGG 759 CCACGTG GGCTAGCTACAACGA TTCTCAGA 2	3268	UUCAAGUG G CCAGAGGC	744	GCCTCTGG GGCTAGCTACAACGA CACTTGAA	2446
3282 GGCAUGGA G UUCCUGUC 747 GACAGGAA GGCTAGCTACAACGA TCCATGCC 2449 3288 GAGUUCCU G UCUUCCAG 748 CTGGAAGA GGCTAGCTACAACGA AGGAACTC 2450 3300 UCCAGAAA G UGCAUUCA 749 TGAATGCA GGCTAGCTACAACGA ATTCTG 2451 3302 CAGAAAGU G CAUUCAUC 750 GATGAATG GGCTAGCTACAACGA ACTTCTG 2453 3304 GAAAGUGC A UUCAUCGG 751 CCGATGAA GGCTAGCTACAACGA GAATGCA 2454 3308 GUGCAUUC A UCGGGAC 752 GGTCCCGA GGCTAGCTACAACGA GAATGCA 2454 3314 UCAUCGGG A CUGGCAG 753 CTGCCAGG GGCTAGCTACAACGA CCGATGA 2455 3319 GGGACUG G CAGCAGA 754 TCTCGCTG GGCTAGCTACAACGA TGCAGTC 2456 3322 ACCUGGCA G CAGAAAC 755 GTTTCTG GGCTAGCTACAACGA TCTCCCCT 2458 3331 CGAGAAAC A UUCUUU 756 AAAGAATG GGCTAGCTACAACGA TCTCCCCT 2458 3329 AUUCUUU A UCUGAGAA 758 TCTCTCAGA GGCTAGCTACAACGA TCTCCCCT 2459 3347 AUCUGAGA 760 TCACCACG GGCTAGCTACAACGA TCTCAGAT 2461 <t< td=""><td>3275</td><td>GGCCAGAG G CAUGGAGU</td><td>745</td><td>ACTCCATG GGCTAGCTACAACGA CTCTGGCC</td><td>2447</td></t<>	3275	GGCCAGAG G CAUGGAGU	745	ACTCCATG GGCTAGCTACAACGA CTCTGGCC	2447
3288 GAGUUCCU G UCUUCCAG 748 CTGGAAGA G GCTAGCTACAACGA AGGAACTC 2450 3300 UCCAGAAA G UGCAUUCA 749 TGAATGCA GGCTAGCTACAACGA TTTCTGGA 2451 3302 CAGAAAGU G CAUUCAUC 750 GATGAATG GGCTAGCTACAACGA ACTTTCTG 2452 3304 GAAAGUG A UUCAUCGG 751 CCGATGAA GGCTAGCTACAACGA GAATGCAC 2454 3308 GUGCAUUC A UCGGGACC 752 GGTCCCGA GGCTAGCTACAACGA GAATGCAC 2454 3314 UCAUCGG A CCUGGCAG 753 CTGCCAG GGCTAGCTACAACGA CAGGTCCC 2456 3319 GGGACCUG G CAGCAGAAC 754 TCTCGCTG GCTAGCTACAACGA CAGGTCCC 2456 3322 ACCUGGCA G CGAGAAC 755 GTTTCTCG GCCTAGCTACAACGA TGCCAGT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 2459 3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA GTTCTCGC 2459 2459 3334 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 2350 UGAGAACA A CGUGGUGA 760 TCACCACG GCTAGCTACAACGA TCTCAGAT 2461 2352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA CACGTTCTC 2463 2363 AGA	3277	CCAGAGGC A UGGAGUUC	746	GAACTCCA GGCTAGCTACAACGA GCCTCTGG	2448
3300 UCCAGAAA G UGCAUUCA 749 TGAATGCA GGCTAGCTACAACGA TTTCTGGA 2451 3302 CAGAAAGU G CAUUCAUC 750 GATGAATG GGCTAGCTACAACGA ACTTTCTG 2452 3304 GAAAGUG A UUCAUCGG 751 CCGATGAA GGCTAGCTACAACGA GACTTTC 2453 3308 GUGCAUUC A UCGGGACC 752 GGTCCCGA GGCTAGCTACAACGA GAATGCAC 2454 3314 UCAUCGGG A CCUGGCAG 753 CTGCCAGG GGCTAGCTACAACGA CCGATGA 2455 3319 GGGACCUG G CAGCGAGA 754 TCTCGGCTG GGCTAGCTACAACGA CCGGTCC 2456 3322 ACCUGGCA G CGAGAAAC 755 GTTTCTCG GGCTACCAACGA TGCCAGCT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUU 757 TAAAAGAA GGCTAGCTACAACGA TTCTCGCT 2458 3334 AUUCUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA TTCTCAGAT 2461 3347 AUCUGAGA A CAGCUGG 759 CCACGTTG GGCTAGCTACAACGA TGTTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3351 AGAACAAC G UGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGA 760 TCACCACG GGCTAGCTACAACGA CACGTTCTCACA 3361 UGGUGAGA UUUGUGA 762 ATCTTCACA	3282	GGCAUGGA G UUCCUGUC	747	GACAGGAA GGCTAGCTACAACGA TCCATGCC	2449
3302 CAGAAAGU G CAUUCAUC 750 GATGAATG GGCTAGCTACAACGA ACTTTCTG 2452 3304 GAAAGUGC A UUCAUCGG 751 CCGATGAA GGCTAGCTACAACGA GCACTTTC 2453 3308 GUGCAUUC A UCGGGACC 752 GGTCCCGA GGCTAGCTACAACGA GAATGCAC 2454 3314 UCAUCAGG A CCUGGCAG 753 CTGCCAGG GGCTAGCTACAACGA CAGGTCCC 2456 3319 GGGACCUG G CAGCGAGA 754 TCTCGCTG GGCTAGCTACAACGA CAGGTCCC 2456 3322 ACCUGGCA G CGAGAAAC 755 GTTTCTCG GGCTAGCTACAACGA TGCCAGGT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUU A TST TAAAAGAA GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUU A TST TAAAAGAA GGCTAGCTACAACGA ATACGAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TTCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3351 ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTGTT 2463	3288	GAGUUCCU G UCUUCCAG	748	CTGGAAGA GGCTAGCTACAACGA AGGAACTC	2450
3304 GAAAGUGC A UUCAUCGG 751 CCGATGAA GGCTAGCTACAACGA GCACTTTC 2453 3308 GUGCAUUC A UCGGGACC 752 GGTCCCGA GGCTAGCTACAACGA GAATGCAC 2454 3314 UCAUCGGG A CCUGGCAG 753 CTGCCAGG GGCTAGCTACAACGA CCCGATGA 2455 3319 GGGACCUG G CAGCGAGA 754 TCTCGCTG GGCTAGCTACAACGA CCGGATGA 2455 3329 ACCUGGCA G CGAGAAAC 755 GTTTCTCG GGCTAGCTACAACGA CAGGTCCC 2456 3322 ACCUGGCA G CAGCGAGA 754 TCTCGCTG GGCTACAACGA TGCCAGGT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA TTCTCGCT 2458 3333 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA AAAAGAAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TCTCAGAT 2461 3351 AGAACAAC G UGGUGAAG 761 CTCACCAC GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA TGTTCTC 2463 3355 ACAACGUG G UGAAGAUU 762 AATCTCTCA GGCTACAACGA TGTTCTC 2466 3365 GAAGAUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA CACGTTGT 2466 3366 GAAGAUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AAATCTC 2466 3368 GAAUUUUUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAAA GGCTAGCTACAACGA CACAAATC 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CACAAATC 2467 3388 CCCGGGAU A UUUUUAUAA 768 TATAAATA GGCTAGCTACAACGA CACAAATC 2467 3388 CCCGGGAU A UUUUUAUAA 768 TATAAATA GGCTAGCTACAACGA CACAAATC 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA CACAAATC 2472 3399 UUAGACC A UUAUUAAA 772 TCACATAA GGCTAGCTACAACGA AATCCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA AATCCC 2472 3398 UUAUAAGA A CCCCGAUU 771 CACATAA GGCTAGCTACAACGA AATCCC 2472 3407 CCCCGGUU A UGAGAAAA 773 TTCTCACA GGCTAGCTACAACGA AATCCCGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATCTCTTTT 2477	3300	UCCAGAAA G UGCAUUCA	749	TGAATGCA GGCTAGCTACAACGA TTTCTGGA	2451
3308 GUGCAUUC A UCGGGACC 752 GGTCCCGA GGCTAGCTACAACGA GAATGCAC 2454 3314 UCAUCGGG A CCUGGCAG 753 CTGCCAGG GGCTAGCTACAACGA CCCGATGA 2455 3319 GGGACCUG G CAGCGAGA 754 TCTCGCTG GGCTAGCTACAACGA CAGGTCCC 2456 3322 ACCUGGCA G CGAGAAAC 755 GTTTCTCG GGCTAGCACACGA TGCCAGGT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAAT GGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA GTTCTCTC 2459 3339 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA TCTCAGAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCCAGAT 2461 3350 UGAGAACA C G UGGUGAA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3351 AGAACAAC G UGGUGAA 761 CTTCACCA GGCTAGCTACAACGA CTTCCAC 2463 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA CTTCACCA 2464 3361 UGGUGAGA 100 100 100 100 100 <td>3302</td> <td>CAGAAAGU G CAUUCAUC</td> <td>750</td> <td>GATGAATG GGCTAGCTACAACGA ACTTTCTG</td> <td>2452</td>	3302	CAGAAAGU G CAUUCAUC	750	GATGAATG GGCTAGCTACAACGA ACTTTCTG	2452
3314 UCAUCGGG A CCUGGCAG 753 CTGCCAGG GGCTAGCTACAACGA CCCGATGA 2455 3319 GGGACCUG G CAGCGAGA 754 TCTCGCTG GGCTAGCTACAACGA CAGGTCCC 2456 3322 ACCUGGCA G CGAGAAAC 755 GTTTCTCG GGCTAGCTACAACGA TGCCAGGT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA GTTTCTCG 2459 3339 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA AAAGAAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA TGTTCTC 2463 3355 ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUUGGCC 766 GGCCAAAA GGCTAGCTACAACGA AAATCTTC 2466 3368 GAUUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CACAAATC 2467 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CACAAATC 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CACAAATC 2468 3368 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CACAAATC 2467 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA AACGCCAA 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA ACGCCAA 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA ACGACCACGGCCA 2470 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CACGGGCCA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CACGGGCCA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA AAATACC 2472 3407 CCCCGAUU A UGUGAGAAA 773 TTCTCACA GGCTAGCTACAACGA AATCCGGG 2475 3409 CCGAUUUU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATCCGGG 2476 3409 CCGAUUUU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA ATAATCGG 2476	3304	GAAAGUGC A UUCAUCGG	751	CCGATGAA GGCTAGCTACAACGA GCACTTTC	2453
3319 GGGACCUG G CAGCGAGA 754 TCTCGCTG GGCTAGCTACAACGA CAGGTCCC 2456 3322 ACCUGGCA G CGAGAAAC 755 GTTTCTCG GGCTAGCTACAACGA TGCCAGGT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA GTTTCTCG 2459 3339 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA AAAAGAAT 2460 3347 AUCUGAGAA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TCTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA CACGTTCT 2463 3355 ACAACGUG G UGAAGAUU 762 AATCCTCA GGCTAGCTACAACGA CACGTTCAC 2465 3361 UGGUGAAG A UUUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CACAATCTTC 2466 3368 GAUUUUG G UGUUUUG 764 CAAAATCA GGCTAGCTACAACGA CACAAATCT 2467 3374 UGAUUUUG G CCUGGCC 766 GGCCAAAA GGCTAGCTACAACGA CAAAATC	3308	GUGCAUUC A UCGGGACC	752	GGTCCCGA GGCTAGCTACAACGA GAATGCAC	2454
3322 ACCUGGCA G CGAGAAAC 755 GTTTCTCG GGCTAGCTACAACGA TGCCAGGT 2457 3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA GTTTCTCG 2459 3339 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA AAAAGAAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TCTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA TCTCTCT 2463 3355 ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTCT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CACGATCT 2466 3368 GAUUUUG G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA CACAAATC 2466 3368 GAUUUUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG C CCUGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CACAAATC 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CCCGGCA 2470 3386 UGCCCGGG A UAUUUAAAG 768 TATAAATA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 <t< td=""><td>3314</td><td>UCAUCGGG A CCUGGCAG</td><td>753</td><td>CTGCCAGG GGCTAGCTACAACGA CCCGATGA</td><td>2455</td></t<>	3314	UCAUCGGG A CCUGGCAG	753	CTGCCAGG GGCTAGCTACAACGA CCCGATGA	2455
3329 AGCGAGAA A CAUUCUUU 756 AAAGAATG GGCTAGCTACAACGA TTCTCGCT 2458 3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA GTTTCTCG 2459 3339 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA AAAAGAAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA GTTGTTCT 2463 3355 ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CACTACAC 2465 3368 GAUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CAAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CCCGGCA 2470 3386 UGCCGGG A UAUUUAAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 <	3319	GGGACCUG G CAGCGAGA	754	TCTCGCTG GGCTAGCTACAACGA CAGGTCCC	2456
3331 CGAGAAAC A UUCUUUUA 757 TAAAAGAA GGCTAGCTACAACGA GTTTCTCG 2459 3339 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA AAAAGAAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA GTTGTTCT 2463 3355 ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUUGGAU 763 ATCACAAA GGCTAGCTACAACGA CACCAATC 2465 3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA CACAAATC 2466 3368 GAUUUGUG A UUUUGGCC 766 GGGCAAAG GGCTAGCTACAACGA CAAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA ATCTCCCGG 2472 <td>3322</td> <td>ACCUGGCA G CGAGAAAC</td> <td>755</td> <td>GTTTCTCG GGCTAGCTACAACGA TGCCAGGT</td> <td>2457</td>	3322	ACCUGGCA G CGAGAAAC	755	GTTTCTCG GGCTAGCTACAACGA TGCCAGGT	2457
3339 AUUCUUUU A UCUGAGAA 758 TTCTCAGA GGCTAGCTACAACGA AAAAGAAT 2460 3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA TGTTCTCA 2463 3355 ACAACGUG G UGAGAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CTTCACCA 2465 3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AATCTTC 2466 3368 GAUUUGUG A UUUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAAG GGCTAGCTACAACGA CACAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CAAAATCA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ACCGGGCA 2470 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA CGGGGTTC 2474 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA ATAATCGG 2476	3329	AGCGAGAA A CAUUCUUU	756	AAAGAATG GGCTAGCTACAACGA TTCTCGCT	2458
3347 AUCUGAGA A CAACGUGG 759 CCACGTTG GGCTAGCTACAACGA TCTCAGAT 2461 3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA GTTGTTCT 2463 3355 ACAACGUG G UGAAGAUU 762 AATCATCA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CATCACCA 2465 3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AAATCTTC 2466 3368 GAUUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGA GGCTAGCTACAACGA CACAAATC 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA CACAAATCA 2469 3386 UGCCCGGG A UAUUUAUAA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ACCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATACC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA CTCTATAAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATACCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3331	CGAGAAAC A UUCUUUUA	757	TAAAAGAA GGCTAGCTACAACGA GTTTCTCG	2459
3350 UGAGAACA A CGUGGUGA 760 TCACCACG GGCTAGCTACAACGA TGTTCTCA 2462 3352 AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA GTTGTTCT 2463 3355 ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CTTCACCA 2465 3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AAATCTTC 2466 3368 GAUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CACAAATC 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA ACCGGCCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ACCCGGGC 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATACC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGC 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3339	AUUCUUUU A UCUGAGAA	758	TTCTCAGA GGCTAGCTACAACGA AAAAGAAT	2460
AGAACAAC G UGGUGAAG 761 CTTCACCA GGCTAGCTACAACGA GTTGTTCT 2463 3355 ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CTTCACCA 2465 3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AAATCTTC 2466 3368 GAUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CACAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATTCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTACAACGA CTCCTTTT 2477	3347	AUCUGAGA A CAACGUGG	759	CCACGTTG GGCTAGCTACAACGA TCTCAGAT	2461
ACAACGUG G UGAAGAUU 762 AATCTTCA GGCTAGCTACAACGA CACGTTGT 2464 3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CTTCACCA 2465 3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AAATCTTC 2466 3368 GAUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCCUGGCC 766 GGGCAAGG GGCTAGCTACAACGA CACAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3350	UGAGAACA A CGUGGUGA	760	TCACCACG GGCTAGCTACAACGA TGTTCTCA	2462
3361 UGGUGAAG A UUUGUGAU 763 ATCACAAA GGCTAGCTACAACGA CTTCACCA 2465 3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AAATCTTC 2466 3368 GAUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CAAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3352	AGAACAAC G UGGUGAAG	761	CTTCACCA GGCTAGCTACAACGA GTTGTTCT	2463
3365 GAAGAUUU G UGAUUUUG 764 CAAAATCA GGCTAGCTACAACGA AAATCTTC 2466 3368 GAUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CACAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGGAU A UUUAUAAGG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUUA UGUGAGAAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3355	ACAACGUG G UGAAGAUU	762	AATCTTCA GGCTAGCTACAACGA CACGTTGT	2464
3368 GAUUUGUG A UUUUGGCC 765 GGCCAAAA GGCTAGCTACAACGA CACAAATC 2467 3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CACAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3361	UGGUGAAG A UUUGUGAU	763	ATCACAAA GGCTAGCTACAACGA CTTCACCA	2465
3374 UGAUUUUG G CCUUGCCC 766 GGGCAAGG GGCTAGCTACAACGA CAAAATCA 2468 3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3365	GAAGAUUU G UGAUUUUG	764	CAAAATCA GGCTAGCTACAACGA AAATCTTC	2466
3379 UUGGCCUU G CCCGGGAU 767 ATCCCGGG GGCTAGCTACAACGA AAGGCCAA 2469 3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3368	GAUUUGUG A UUUUGGCC	765	GGCCAAAA GGCTAGCTACAACGA CACAAATC	2467
3386 UGCCCGGG A UAUUUAUA 768 TATAAATA GGCTAGCTACAACGA CCCGGGCA 2470 3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3374	UGAUUUUG G CCUUGCCC	766	GGGCAAGG GGCTAGCTACAACGA CAAAATCA	2468
3388 CCCGGGAU A UUUAUAAG 769 CTTATAAA GGCTAGCTACAACGA ATCCCGGG 2471 3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3379	UUGGCCUU G CCCGGGAU	767	ATCCCGGG GGCTAGCTACAACGA AAGGCCAA	2469
3392 GGAUAUUU A UAAGAACC 770 GGTTCTTA GGCTAGCTACAACGA AAATATCC 2472 3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3386	UGCCCGGG A UAUUUAUA	768	TATAAATA GGCTAGCTACAACGA CCCGGGCA	2470
3398 UUAUAAGA A CCCCGAUU 771 AATCGGGG GGCTAGCTACAACGA TCTTATAA 2473 3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3388	CCCGGGAU A UUUAUAAG	769	CTTATAAA GGCTAGCTACAACGA ATCCCGGG	2471
3404 GAACCCCG A UUAUGUGA 772 TCACATAA GGCTAGCTACAACGA CGGGGTTC 2474 3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3392	GGAUAUUU A UAAGAACC	770	GGTTCTTA GGCTAGCTACAACGA AAATATCC	2472
3407 CCCCGAUU A UGUGAGAA 773 TTCTCACA GGCTAGCTACAACGA AATCGGGG 2475 3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3398	UUAUAAGA A CCCCGAUU	771	AATCGGGG GGCTAGCTACAACGA TCTTATAA	2473
3409 CCGAUUAU G UGAGAAAA 774 TTTTCTCA GGCTAGCTACAACGA ATAATCGG 2476 3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3404	GAACCCCG A UUAUGUGA	772	TCACATAA GGCTAGCTACAACGA CGGGGTTC	2474
3422 AAAAGGAG A UACUCGAC 775 GTCGAGTA GGCTAGCTACAACGA CTCCTTTT 2477	3407	CCCCGAUU A UGUGAGAA	773	TTCTCACA GGCTAGCTACAACGA AATCGGGG	2475
	3409	CCGAUUAU G UGAGAAAA	774	TTTTCTCA GGCTAGCTACAACGA ATAATCGG	2476
3424 AAGGAGAU A CUCGACUU 776 AAGTCGAG GGCTAGCTACAACGA ATCTCCTT 2478	3422	AAAAGGAG A UACUCGAC	775	GTCGAGTA GGCTAGCTACAACGA CTCCTTTT	2477
	3424	AAGGAGAU A CUCGACUU	776	AAGTCGAG GGCTAGCTACAACGA ATCTCCTT	2478

3429	GAUACUCG A CUUCCUCU	777		2479
3441	CCUCUGAA A UGGAUGGC	778	GCCATCCA GGCTAGCTACAACGA TTCAGAGG 2	2480
3445	UGAAAUGG A UGGCUCCC	779	<u> </u>	2481
3448	AAUGGAUG G CUCCCGAA	780	TICGGGAG GGCTAGCTACAACGA CATCCATT 2	2482
3456	GCUCCCGA A UCUAUCUU	781		2483
3460	CCGAAUCU A UCUUUGAC	782	GTCAAAGA GGCTAGCTACAACGA AGATTCGG 2	2484
3467	UAUCUUUG A CAAAAUCU	783	AGATTTIG GGCTAGCTACAACGA CAAAGATA 2	2485
3472	UUGACAAA A UCUACAGC	784	GCTGTAGA GGCTAGCTACAACGA TTTGTCAA 2	2486
3476	CAAAAUCU A CAGCACCA	785	TGGTGCTG GGCTAGCTACAACGA AGATTTTG 2	2487
3479	AAUCUACA G CACCAAGA	786	TCTTGGTG GGCTAGCTACAACGA TGTAGATT 2	2488
3481	UCUACAGC A CCAAGAGC	787	GCTCTTGG GGCTAGCTACAACGA GCTGTAGA 2	2489
3488	CACCAAGA G CGACGUGU	788	ACACGTCG GGCTAGCTACAACGA TCTTGGTG 2	2490
3491	CAAGAGCG A CGUGUGGU	789	ACCACACG GGCTAGCTACAACGA CGCTCTTG 2	2491
3493	AGAGCGAC G UGUGGUCU	790	AGACCACA GGCTAGCTACAACGA GTCGCTCT 2	2492
3495	AGCGACGU G UGGUCUUA	791	TAAGACCA GGCTAGCTACAACGA ACGTCGCT 2	2493
3498	GACGUGUG G UCUUACGG	792	CCGTAAGA GGCTAGCTACAACGA CACACGTC 2	2494
3503	GUGGUCUU A CGGAGUAU	793	ATACTCCG GGCTAGCTACAACGA AAGACCAC 2	2495
3508	CUUACGGA G UAUUGCUG	794	CAGCAATA GGCTAGCTACAACGA TCCGTAAG 2	2496
3510	UACGGAGU A UUGCUGUG	795	CACAGCAA GGCTAGCTACAACGA ACTCCGTA 2	2497
3513	GGAGUAUU G CUGUGGGA	796	TCCCACAG GGCTAGCTACAACGA AATACTCC 2	2498
3516	GUAUUGCU G UGGGAAAU	797	ATTTCCCA GGCTAGCTACAACGA AGCAATAC 2	2499
3523	UGUGGGAA A UCUUCUCC	798	GGAGAAGA GGCTAGCTACAACGA TTCCCACA 2	2500
3536	CUCCUUAG G UGGGUCUC	799	GAGACCCA GGCTAGCTACAACGA CTAAGGAG Z	2501
3540	UUAGGUGG G UCUCCAUA	800	TATGGAGA GGCTAGCTACAACGA CCACCTAA 2	2502
3546	GGGUCUCC A UACCCAGG	801	CCTGGGTA GGCTAGCTACAACGA GGAGACCC Z	2503
3548	GUCUCCAU A CCCAGGAG	802	CTCCTGGG GGCTAGCTACAACGA ATGGAGAC 2	2504
3556	ACCCAGGA G UACAAAUG	803	CATTIGIA GGCTAGCTACAACGA TCCTGGGT 2	2505
3558	CCAGGAGU A CAAAUGGA	804	TCCATTTG GGCTAGCTACAACGA ACTCCTGG 2	2506
3562	GAGUACAA A UGGAUGAG	805	CTCATCCA GGCTAGCTACAACGA TTGTACTC 2	2507
3566	ACAAAUGG A UGAGGACU	806	AGTCCTCA GGCTAGCTACAACGA CCATTTGT 2	2508
3572	GGAUGAGG A CUUUUGCA	807	TGCAAAAG GGCTAGCTACAACGA CCTCATCC 2	2509
3578	GGACUUUU G CAGUCGCC	808	GGCGACTG GGCTAGCTACAACGA AAAAGTCC 2	2510
3581	CUUUUGCA G UCGCCUGA	809	TCAGGCGA GGCTAGCTACAACGA TGCAAAAG 2	2511
3584	UUGCAGUC G CCUGAGGG	810	CCCTCAGG GGCTAGCTACAACGA GACTGCAA 2	2512
3596	GAGGGAAG G CAUGAGGA	811	TCCTCATG GGCTAGCTACAACGA CTTCCCTC 2	2513
3598	GGGAAGGC A UGAGGAUG	812	CATCCTCA GGCTAGCTACAACGA GCCTTCCC 2	2514
3604	GCAUGAGG A UGAGAGCU	813	AGCTCTCA GGCTAGCTACAACGA CCTCATGC 2	2515
3610	GGAUGAGA G CUCCUGAG	814	CTCAGGAG GGCTAGCTACAACGA TCTCATCC 2	2516
3618	GCUCCUGA G UACUCUAC	815	GTAGAGTA GGCTAGCTACAACGA TCAGGAGC 2	2517
3620	UCCUGAGU A CUCUACUC	816	GAGTAGAG GGCTAGCTACAACGA ACTCAGGA 2	2518
3625	AGUACUCU A CUCCUGAA	817	TTCAGGAG GGCTAGCTACAACGA AGAGTACT 2	2519
3634	CUCCUGAA A UCUAUCAG	818		2520
3638	UGAAAUCU A UCAGAUCA	819		2521
3643	UCUAUCAG A UCAUGCUG	820		2522
3646	AUCAGAUC A UGCUGGAC	821		2523
3648	CAGAUCAU G CUGGACUG	822		2524
3653	CAUGCUGG A CUGCUGGC	823		2525
3656	GCUGGACU G CUGGCACA	824		2526
3660	GACUGCUG G CACAGAGA	825		2527
3662	CUGCUGGC A CAGAGACC	826		2528
3668	GCACAGAG A CCCAAAAG	827		2529
3681	AAAGAAAG G CCAAGAUU	828		2530
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3687	AGGCCAAG A UUUGCAGA	829	TCTGCAAA GGCTAGCTACAACGA CTTGGCCT	2531
3691	CAAGAUUU G CAGAACUU	830	AAGTTCTG GGCTAGCTACAACGA AAATCTTG	2532
3696	UUUGCAGA A CUUGUGGA	831	TCCACAAG GGCTAGCTACAACGA TCTGCAAA	2533
3700	CAGAACUU G UGGAAAAA	832	TTTTTCCA GGCTAGCTACAACGA AAGTTCTG	2534
3708	GUGGAAAA A CUAGGUGA	833	TCACCTAG GGCTAGCTACAACGA TTTTCCAC	2535
3713	AAAACUAG G UGAUUUGC	834	GCAAATCA GGCTAGCTACAACGA CTAGTTTT	2536
3716	ACUAGGUG A UUUGCUUC	835	GAAGCAAA GGCTAGCTACAACGA CACCTAGT	2537
3720	GGUGAUUU G CUUCAAGC	836	GCTTGAAG GGCTAGCTACAACGA AAATCACC	2538
3727	UGCUUCAA G CAAAUGUA	837	TACATTTG GGCTAGCTACAACGA TTGAAGCA	2539
3731	UCAAGCAA A UGUACAAC	838	GTTGTACA GGCTAGCTACAACGA TTGCTTGA	2540
3733	AAGCAAAU G UACAACAG	839	CTGTTGTA GGCTAGCTACAACGA ATTTGCTT	2541
3735	GCAAAUGU A CAACAGGA	840	TCCTGTTG GGCTAGCTACAACGA ACATTTGC	2542
3738	AAUGUACA A CAGGAUGG	841	CCATCCTG GGCTAGCTACAACGA TGTACATT	2543
3743	ACAACAGG A UGGUAAAG	842	CTTTACCA GGCTAGCTACAACGA CCTGTTGT	2544
3746	ACAGGAUG G UAAAGACU	843	AGTCTTTA GGCTAGCTACAACGA CATCCTGT	2545
3752	UGGUAAAG A CUACAUCC	844	GGATGTAG GGCTAGCTACAACGA CTTTACCA	2546
3755	UAAAGACU A CAUCCCAA	845	TTGGGATG GGCTAGCTACAACGA AGTCTTTA	2547
3757	AAGACUAC A UCCCAAUC	846	GATTGGGA GGCTAGCTACAACGA GTAGTCTT	2548
3763	ACAUCCCA A UCAAUGCC	847	GGCATTGA GGCTAGCTACAACGA TGGGATGT	2549
3767	CCCAAUCA A UGCCAUAC	848	GTATGGCA GGCTAGCTACAACGA TGATTGGG	2550
3769	CAAUCAAU G CCAUACUG	849	CAGTATGG GGCTAGCTACAACGA ATTGATTG	2551
3772	UCAAUGCC A UACUGACA	850	TGTCAGTA GGCTAGCTACAACGA GGCATTGA	2552
3774	AAUGCCAU A CUGACAGG	851	CCTGTCAG GGCTAGCTACAACGA ATGGCATT	2553
3778	CCAUACUG A CAGGAAAU	852	ATTTCCTG GGCTAGCTACAACGA CAGTATGG	2554
3785	GACAGGAA A UAGUGGGU	853	ACCCACTA GGCTAGCTACAACGA TTCCTGTC	2555
3788	AGGAAAUA G UGGGUUUA	854	TAAACCCA GGCTAGCTACAACGA TATTTCCT	2556
3792	AAUAGUGG G UUUACAUA	855	TATGTAAA GGCTAGCTACAACGA CCACTATT	2557
3796	GUGGGUUU A CAUACUCA	856	TGAGTATG GGCTAGCTACAACGA AAACCCAC	2558
3798	GGGUUUAC A UACUCAAC	857	GTTGAGTA GGCTAGCTACAACGA GTAAACCC	2559
3800	GUUUACAU A CUCAACUC	858	GAGTTGAG GGCTAGCTACAACGA ATGTAAAC	2560
3805	CAUACUCA A CUCCUGCC	859	GGCAGGAG GGCTAGCTACAACGA TGAGTATG	2561
3811	CAACUCCU G CCUUCUCU	860	AGAGAAGG GGCTAGCTACAACGA AGGAGTTG	2562
3824	CUCUGAGG A CUUCUUCA	861	TGAAGAAG GGCTAGCTACAACGA CCTCAGAG	2563
3839	CAAGGAAA G UAUUUCAG	862	CTGAAATA GGCTAGCTACAACGA TTTCCTTG	2564
3841	AGGAAAGU A UUUCAGCU	863	AGCTGAAA GGCTAGCTACAACGA ACTTTCCT	2565
3847	GUAUUUCA G CUCCGAAG	864	CTTCGGAG GGCTAGCTACAACGA TGAAATAC	2566
3855	GCUCCGAA G UUUAAUUC	865	GAATTAAA GGCTAGCTACAACGA TTCGGAGC	2567
3860	GAAGUUUA A UUCAGGAA	866	TTCCTGAA GGCTAGCTACAACGA TAAACTTC	2568
3869	UUCAGGAA G CUCUGAUG	867	CATCAGAG GGCTAGCTACAACGA TTCCTGAA	2569
3875	AAGCUCUG A UGAUGUCA	868	TGACATCA GGCTAGCTACAACGA CAGAGCTT	2570
3878	CUCUGAUG A UGUCAGAU	869	ATCTGACA GGCTAGCTACAACGA CATCAGAG	2571
3880	CUGAUGAU G UCAGAUAU	870	ATATCTGA GGCTAGCTACAACGA ATCATCAG	2572
3885	GAUGUCAG A UAUGUAAA	871	TTTACATA GGCTAGCTACAACGA CTGACATC	2573
3887	UGUCAGAU A UGUAAAUG	872	CATTTACA GGCTAGCTACAACGA ATCTGACA	2574
3889	UCAGAUAU G UAAAUGCU	873	AGCATTTA GGCTAGCTACAACGA ATATCTGA	2575
3893	AUAUGUAA A UGCUUUCA	874	TGAAAGCA GGCTAGCTACAACGA TTACATAT	2576
3895	AUGUAAAU G CUUUCAAG	875	CTTGAAAG GGCTAGCTACAACGA ATTTACAT	2577
3903	GCUUUCAA G UUCAUGAG	876	CTCATGAA GGCTAGCTACAACGA TTGAAAGC	
3907	UCAAGUUC A UGAGCCUG	877	CAGGCTCA GGCTAGCTACAACGA GAACTTGA	2579
3911	GUUCAUGA G CCUGGAAA	878	TTTCCAGG GGCTAGCTACAACGA TCATGAAC	
3922	UGGAAAGA A UCAAAACC	879	GGTTTTGA GGCTAGCTACAACGA TCTTTCCA	2581
3928	GAAUCAAA A CCUUUGAA	880	TTCAAAGG GGCTAGCTACAACGA TTTGATTC	2582
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3939	UUUGAAGA A CUUUUACC	881	GGTAAAAG GGCTAGCTACAACGA TCTTCAAA	2583
3945	GAACUUUU A CCGAAUGC	882	GCATTCGG GGCTAGCTACAACGA AAAAGTTC	2584
3950	UUUACCGA A UGCCACCU	883	AGGTGGCA GGCTAGCTACAACGA TCGGTAAA	2585
3952	UACCGAAU G CCACCUCC	884	GGAGGTGG GGCTAGCTACAACGA ATTCGGTA	2586
3955	CGAAUGCC A CCUCCAUG	885	CATGGAGG GGCTAGCTACAACGA GGCATTCG	2587
3961	CCACCUCC A UGUUUGAU	886	ATCAAACA GGCTAGCTACAACGA GGAGGTGG	2588
3963	ACCUCCAU G UUUGAUGA	887	TCATCAAA GGCTAGCTACAACGA ATGGAGGT	2589
3968	CAUGUUUG A UGACUACC	888	GGTAGTCA GGCTAGCTACAACGA CAAACATG	2590
3971	GUUUGAUG A CUACCAGG	889	CCTGGTAG GGCTAGCTACAACGA CATCAAAC	2591
3974	UGAUGACU A CCAGGGCG	890	CGCCCTGG GGCTAGCTACAACGA AGTCATCA	2592
3980	CUACCAGG G CGACAGCA	891	TGCTGTCG GGCTAGCTACAACGA CCTGGTAG	2593
3983	CCAGGGCG A CAGCAGCA	892	TGCTGCTG GGCTAGCTACAACGA CGCCCTGG	2594
3986	GGGCGACA G CAGCACUC	893	GAGTGCTG GGCTAGCTACAACGA TGTCGCCC	2595
3989	CGACAGCA G CACUCUGU	894	ACAGAGTG GGCTAGCTACAACGA TGCTGTCG	2596
3991	ACAGCAGC A CUCUGUUG	895	CAACAGAG GGCTAGCTACAACGA GCTGCTGT	2597
3996	AGCACUCU G UUGGCCUC	896	GAGGCCAA GGCTAGCTACAACGA AGAGTGCT	2598
4000	CUCUGUUG G CCUCUCCC	897	GGGAGAGG GGCTAGCTACAACGA CAACAGAG	2599
4009	CCUCUCCC A UGCUGAAG	898	CTTCAGCA GGCTAGCTACAACGA GGGAGAGG	2600
4011	UCUCCCAU G CUGAAGCG	899	CGCTTCAG GGCTAGCTACAACGA ATGGGAGA	2601
4017	AUGCUGAA G CGCUUCAC	900	GTGAAGCG GGCTAGCTACAACGA TTCAGCAT	2602
4019	GCUGAAGC G CUUCACCU	901	AGGTGAAG GGCTAGCTACAACGA GCTTCAGC	2603
4024	AGCGCUUC A CCUGGACU	902	AGTCCAGG GGCTAGCTACAACGA GAAGCGCT	2604
4030	UCACCUGG A CUGACAGC	903	GCTGTCAG GGCTAGCTACAACGA CCAGGTGA	2605
4034	CUGGACUG A CAGCAAAC	904	GTTTGCTG GGCTAGCTACAACGA CAGTCCAG	2606 .
4037	GACUGACA G CAAACCCA	905	TGGGTTTG GGCTAGCTACAACGA TGTCAGTC	2607
4041	GACAGCAA A CCCAAGGC	906	GCCTTGGG GGCTAGCTACAACGA TTGCTGTC	2608
4048	AACCCAAG G CCUCGCUC	907	GAGCGAGG GGCTAGCTACAACGA CTTGGGTT	2609
4053	AAGGCCUC G CUCAAGAU	908	ATCTTGAG GGCTAGCTACAACGA GAGGCCTT	2610
4060	CGCUCAAG A UUGACUUG	909	CAAGTCAA GGCTAGCTACAACGA CTTGAGCG	2611
4064	CAAGAUUG A CUUGAGAG	910	CTCTCAAG GGCTAGCTACAACGA CAATCTTG	2612
4072	ACUUGAGA G UAACCAGU	911	ACTGGTTA GGCTAGCTACAACGA TCTCAAGT	2613
4075	UGAGAGUA A CCAGUAAA	912	TTTACTGG GGCTAGCTACAACGA TACTCTCA	2614
4079	AGUAACCA G UAAAAGUA	913	TACTTTTA GGCTAGCTACAACGA TGGTTACT	2615
4085	CAGUAAAA G UAAGGAGU	914	ACTCCTTA GGCTAGCTACAACGA TTTTACTG	2616
4092	AGUAAGGA G UCGGGGCU	915	AGCCCCGA GGCTAGCTACAACGA TCCTTACT	2617
4098	GAGUCGGG G CUGUCUGA	916	TCAGACAG GGCTAGCTACAACGA CCCGACTC	2618
4101	UCGGGGCU G UCUGAUGU	917	ACATCAGA GGCTAGCTACAACGA AGCCCCGA	2619
4106	GCUGUCUG A UGUCAGCA	918	TGCTGACA GGCTAGCTACAACGA CAGACAGC	2620
4108	UGUCUGAU G UCAGCAGG	919	CCTGCTGA GGCTAGCTACAACGA ATCAGACA	2621
4112	UGAUGUCA G CAGGCCCA	920	TGGGCCTG GGCTAGCTACAACGA TGACATCA	2622
4116	GUCAGCAG G CCCAGUUU	921	AAACTGGG GGCTAGCTACAACGA CTGCTGAC	2623
4121	CAGGCCCA G UUUCUGCC	922	GGCAGAAA GGCTAGCTACAACGA TGGGCCTG	2624
4127	CAGUUUCU G CCAUUCCA	923	TGGAATGG GGCTAGCTACAACGA AGAAACTG	2625
4130	UUUCUGCC A UUCCAGCU	924	AGCTGGAA GGCTAGCTACAACGA GGCAGAAA	2626
4136	CCAUUCCA G CUGUGGGC	925	GCCCACAG GGCTAGCTACAACGA TGGAATGG	2627
4139	UUCCAGCU G UGGGCACG	926	CGTGCCCA GGCTAGCTACAACGA AGCTGGAA	2628
4143	AGCUGUGG G CACGUCAG	927	CTGACGTG GGCTAGCTACAACGA CCACAGCT	2629
4145	CUGUGGGC A CGUCAGCG	928	CGCTGACG GGCTAGCTACAACGA GCCCACAG	2630
4147	GUGGGCAC G UCAGCGAA	929	TTCGCTGA GGCTAGCTACAACGA GTGCCCAC	2631
4151	GCACGUCA G CGAAGGCA	930	TGCCTTCG GGCTAGCTACAACGA TGACGTGC	2632
4157	CAGCGAAG G CAAGCGCA	931	TGCGCTTG GGCTAGCTACAACGA CTTCGCTG	2633
4161	GAAGGCAA G CGCAGGUU	932	AACCTGCG GGCTAGCTACAACGA TTGCCTTC	2634
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4162	ACCORDED C CACCATACA	033	MCAAGGEC CCCTACCTACAACCA CCTMCCCCM	2635
4163	AGGCAAGC G CAGGUUCA	933	TGAACCTG GGCTAGCTACAACGA GCTTGCCT	2635
4167	AAGCGCAG G UUCACCUA	934	TAGGTGAA GGCTAGCTACAACGA CTGCGCTT	2636
4171	GCAGGUUC A CCUACGAC	935	GTCGTAGG GGCTAGCTACAACGA GAACCTGC	2637
4175	GUUCACCU A CGACCACG	936	CGTGGTCG GGCTAGCTACAACGA AGGTGAAC	2638
4178	CACCUACG A CCACGCUG	937	CAGCGTGG GGCTAGCTACAACGA CGTAGGTG	2639
4181	CUACGACC A CGCUGAGC	938	GCTCAGCG GGCTAGCTACAACGA GGTCGTAG	2640
4183	ACGACCAC G CUGAGCUG	939	CAGCTCAG GGCTAGCTACAACGA GTGGTCGT	2641
4188	CACGCUGA G CUGGAAAG	940	CTTTCCAG GGCTAGCTACAACGA TCAGCGTG	2642
4201	AAAGGAAA A UCGCGUGC	941	GCACGCGA GGCTAGCTACAACGA TTTCCTTT	2643
4204	GGAAAAUC G CGUGCUGC	942	GCAGCACG GGCTAGCTACAACGA GATTTTCC	2644
4206	AAAAUCGC G UGCUGCUC	943	GAGCAGCA GGCTAGCTACAACGA GCGATTTT	2645
4208	AAUCGCGU G CUGCUCCC	944	GGGAGCAG GGCTAGCTACAACGA ACGCGATT	2646
4211	CGCGUGCU G CUCCCCGC	945	GCGGGGAG GGCTAGCTACAACGA AGCACGCG	2647
4218	UGCUCCCC G CCCCCAGA	946	TCTGGGGG GGCTAGCTACAACGA GGGGAGCA	2648
4226	GCCCCAG A CUACAACU	947	AGTTGTAG GGCTAGCTACAACGA CTGGGGGC	2649
4229	CCCAGACU A CAACUCGG	948	CCGAGTTG GGCTAGCTACAACGA AGTCTGGG	2650
4232	AGACUACA A CUCGGUGG	949	CCACCGAG GGCTAGCTACAACGA TGTAGTCT	2651
4237	ACAACUCG G UGGUCCUG	950	CAGGACCA GGCTAGCTACAACGA CGAGTTGT	2652
4240	ACUCGGUG G UCCUGUAC	951	GTACAGGA GGCTAGCTACAACGA CACCGAGT	2653
4245	GUGGUCCU G UACUCCAC	952	GTGGAGTA GGCTAGCTACAACGA AGGACCAC	2654
4247	GGUCCUGU A CUCCACCC	953	GGGTGGAG GGCTAGCTACAACGA ACAGGACC	2655
4252	UGUACUCC A CCCCACCC	954	GGGTGGGG GGCTAGCTACAACGA GGAGTACA	2656
4257	UCCACCC A CCCAUCUA	955	TAGATGGG GGCTAGCTACAACGA GGGGTGGA	2657
4261	CCCCACCC A UCUAGAGU	956	ACTCTAGA GGCTAGCTACAACGA GGGTGGGG	2658
4268	CAUCUAGA G UUUGACAC	957	GTGTCAAA GGCTAGCTACAACGA TCTAGATG	2659
4273	AGAGUUUG A CACGAAGC	958	GCTTCGTG GGCTAGCTACAACGA CAAACTCT	2660
4275	AGUUUGAC A CGAAGCCU	959	AGGCTTCG GGCTAGCTACAACGA GTCAAACT	2661
4280	GACACGAA G CCUUAUUU	960	AAATAAGG GGCTAGCTACAACGA TTCGTGTC	2662
4285	GAAGCCUU A UUUCUAGA	961	TCTAGAAA GGCTAGCTACAACGA AAGGCTTC	2663
4295	UUCUAGAA G CACAUGUG	962	CACATGTG GGCTAGCTACAACGA TTCTAGAA	2664
4297	CUAGAAGC A CAUGUGUA	963	TACACATG GGCTAGCTACAACGA GCTTCTAG	2665
4299	AGAAGCAC A UGUGUAUU	964	AATACACA GGCTAGCTACAACGA GTGCTTCT	2666
4301	AAGCACAU G UGUAUUUA	965	TAAATACA GGCTAGCTACAACGA ATGTGCTT	2667
4303	GCACAUGU G UAUUUAUA	966	TATAAATA GGCTAGCTACAACGA ACATGTGC	2668
4305	ACAUGUGU A UUUAUACC	967	GGTATAAA GGCTAGCTACAACGA ACACATGT	2669
4309	GUGUAUUU A UACCCCCA	968	TGGGGGTA GGCTAGCTACAACGA AAATACAC	2670
4311	GUAUUUAU A CCCCCAGG	969	CCTGGGGG GGCTAGCTACAACGA ATAAATAC	2671
4322	CCCAGGAA A CUAGCUUU	970	AAAGCTAG GGCTAGCTACAACGA TTCCTGGG	2672
4326	GGAAACUA G CUUUUGCC	971	GGCAAAAG GGCTAGCTACAACGA TAGTTTCC	2673
4332	UAGCUUUU G CCAGUAUU	972	AATACTGG GGCTAGCTACAACGA AAAAGCTA	2674
4336	UUUUGCCA G UAUUAUGC	973	GCATAATA GGCTAGCTACAACGA TGGCAAAA	2675
4338	UUGCCAGU A UUAUGCAU	974	ATGCATAA GGCTAGCTACAACGA ACTGGCAA	2676
4341	CCAGUAUU A UGCAUAUA	975	TATATGCA GGCTAGCTACAACGA AATACTGG	2677
4343	AGUAUUAU G CAUAUAUA	976	TATATATG GGCTAGCTACAACGA ATAATACT	2678
4345	UAUUAUGC A UAUAUAAG	977	CTTATATA GGCTAGCTACAACGA GCATAATA	2679
4347	UUAUGCAU A UAUAAGUU	978	AACTTATA GGCTAGCTACAACGA ATGCATAA	2680
4349	AUGCAUAU A UAAGUUUA	979	TAAACTTA GGCTAGCTACAACGA ATATGCAT	2681
4353	AUAUAUAA G UUUACACC	980	GGTGTAAA GGCTAGCTACAACGA TTATATAT	2682
4357	AUAAGUUU A CACCUUUA	981	TAAAGGTG GGCTAGCTACAACGA AAACTTAT	2683
4359	AAGUUUAC A CCUUUAUC	982	GATAAAGG GGCTAGCTACAACGA GTAAACTT	2684
4365	ACACCUUU A UCUUUCCA	983	TGGAAAGA GGCTAGCTACAACGA AAAGGTGT	2685
4373	AUCUUUCC A UGGGAGCC	984	GGCTCCCA GGCTAGCTACAACGA GGAAAGAT	2686

4270	CONTIGGO C CONCUERCO	005	CONCORCE COURT COMP CA P CON TROCK THOSE	2607
4379	CCAUGGGA G CCAGCUGC	985	GCAGCTGG GGCTAGCTACAACGA TCCCATGG	
4383	GGGAGCCA G CUGCUUUU	986	AAAAGCAG GGCTAGCTACAACGA TGGCTCCC	2688
4386	AGCCAGCU G CUUUUUGU	987	ACAAAAAG GGCTAGCTACAACGA AGCTGGCT	2689
4393	UGCUUUUU G UGAUUUUU	988	AAAAATCA GGCTAGCTACAACGA AAAAAGCA	2690
4396	UUUUUGUG A UUUUUUUA	989	TAAAAAAA GGCTAGCTACAACGA CACAAAAA	2691
4405	UUUUUUUA A UAGUGCUU	990	AAGCACTA GGCTAGCTACAACGA TAAAAAAA	2692
4408	UUUUAAUA G UGCUUUUU	991	AAAAAGCA GGCTAGCTACAACGA TATTAAAA	2693
4410	UUAAUAGU G CUUUUUUU	992	AAAAAAAG GGCTAGCTACAACGA ACTATTAA	2694
4424	UUUUUUUG A CUAACAAG	993	CTTGTTAG GGCTAGCTACAACGA CAAAAAAA	2695
4428	UUUGACUA A CAAGAAUG	994	CATTCTTG GGCTAGCTACAACGA TAGTCAAA	2696
4434	UAACAAGA A UGUAACUC	995	GAGTTACA GGCTAGCTACAACGA TCTTGTTA	2697
4436	ACAAGAAU G UAACUCCA	996	TGGAGTTA GGCTAGCTACAACGA ATTCTTGT	2698
4439	AGAAUGUA A CUCCAGAU	997	ATCTGGAG GGCTAGCTACAACGA TACATTCT	2699
4446	AACUCCAG A UAGAGAAA	998	TTTCTCTA GGCTAGCTACAACGA CTGGAGTT	2700
4454	AUAGAGAA A UAGUGACA	999	TGTCACTA GGCTAGCTACAACGA TTCTCTAT	2701
4457	GAGAAAUA G UGACAAGU	1000	ACTTGTCA GGCTAGCTACAACGA TATTTCTC	2702
4460	AAAUAGUG A CAAGUGAA	1001	TTCACTTG GGCTAGCTACAACGA CACTATTT	2703
4464	AGUGACAA G UGAAGAAC	1002	GTTCTTCA GGCTAGCTACAACGA TTGTCACT	2704
4471	AGUGAAGA A CACUACUG	1003	CAGTAGTG GGCTAGCTACAACGA TCTTCACT	2705
4473	UGAAGAAC A CUACUGCU	1004	AGCAGTAG GGCTAGCTACAACGA GTTCTTCA	2706
4476	AGAACACU A CUGCUAAA	1005	TTTAGCAG GGCTAGCTACAACGA AGTGTTCT	2707
4479	ACACUACU G CUAAAUCC	1006	GGATTTAG GGCTAGCTACAACGA AGTAGTGT	2708
4484	ACUGCUAA A UCCUCAUG	1007	CATGAGGA GGCTAGCTACAACGA TTAGCAGT	2709
4490	AAAUCCUC A UGUUACUC	1008	GAGTAACA GGCTAGCTACAACGA GAGGATTT	2710
4492	AUCCUCAU G UUACUCAG	1009	CTGAGTAA GGCTAGCTACAACGA ATGAGGAT	2711
4495	CUCAUGUU A CUCAGUGU	1010	ACACTGAG GGCTAGCTACAACGA AACATGAG	2712
4500	GUUACUCA G UGUUAGAG	1011	CTCTAACA GGCTAGCTACAACGA TGAGTAAC	2713
4502	UACUCAGU G UUAGAGAA	1012	TTCTCTAA GGCTAGCTACAACGA ACTGAGTA	2714
4511	UUAGAGAA A UCCUUCCU	1013	AGGAAGGA GGCTAGCTACAACGA TTCTCTAA	2715
4522	CUUCCUAA A CCCAAUGA	1014	TCATTGGG GGCTAGCTACAACGA TTAGGAAG	2716
4527	UAAACCCA A UGACUUCC	1015	GGAAGTCA GGCTAGCTACAACGA TGGGTTTA	2717
4530	ACCCAAUG A CUUCCCUG	1016	CAGGGAAG GGCTAGCTACAACGA CATTGGGT	2718
4538	ACUUCCCU G CUCCAACC	1017	GGTTGGAG GGCTAGCTACAACGA AGGGAAGT	2719
4544	CUGCUCCA A CCCCCGCC	1018	GGCGGGG GGCTAGCTACAACGA TGGAGCAG	2720
4550	CAACCCC G CCACCUCA	1019	TGAGGTGG GGCTAGCTACAACGA GGGGGTTG	2721
4553	CCCCGCC A CCUCAGGG	1020	CCCTGAGG GGCTAGCTACAACGA GGCGGGGG	2722
4561	ACCUCAGG G CACGCAGG	1021	CCTGCGTG GGCTAGCTACAACGA CCTGAGGT	2723
4563	CUCAGGGC A CGCAGGAC	1022	GTCCTGCG GGCTAGCTACAACGA GCCCTGAG	2724
4565	CAGGGCAC G CAGGACCA	1023	TGGTCCTG GGCTAGCTACAACGA GTGCCCTG	2725
4570	CACGCAGG A CCAGUUUG	1024	CAAACTGG GGCTAGCTACAACGA CCTGCGTG	2726
4574	CAGGACCA G UUUGAUUG	1025	CAATCAAA GGCTAGCTACAACGA TGGTCCTG	2727
4579	CCAGUUUG A UUGAGGAG	1026	CTCCTCAA GGCTAGCTACAACGA CAAACTGG	2728
4587	AUUGAGGA G CUGCACUG	1027	CAGTGCAG GGCTAGCTACAACGA TCCTCAAT	2729
4590	GAGGAGCU G CACUGAUC	1028	GATCAGTG GGCTAGCTACAACGA AGCTCCTC	2730
4592	GGAGCUGC A CUGAUCAC	1029	GTGATCAG GGCTAGCTACAACGA GCAGCTCC	2731
4596	CUGCACUG A UCACCCAA	1030	TTGGGTGA GGCTAGCTACAACGA CAGTGCAG	2732
4599	CACUGAUC A CCCAAUGC	1031	GCATTGGG GGCTAGCTACAACGA GATCAGTG	2733
4604	AUCACCCA A UGCAUCAC	1032	GTGATGCA GGCTAGCTACAACGA TGGGTGAT	2734
4606	CACCCAAU G CAUCACGU	1033	ACGTGATG GGCTAGCTACAACGA ATTGGGTG	2735
4608	CCCAAUGC A UCACGUAC	1034	GTACGTGA GGCTAGCTACAACGA GCATTGGG	2736
4611	AAUGCAUC A CGUACCCC	1035	GGGGTACG GGCTAGCTACAACGA GATGCATT	2737
4613	UGCAUCAC G UACCCCAC	1036	GTGGGGTA GGCTAGCTACAACGA GTGATGCA	2738

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4615	CAUCACGU A CCCCACUG	1037	CAGTGGGG GGCTAGCTACAACGA ACGTGATG	2739
4620	CGUACCCC A CUGGGCCA	1038	TGGCCCAG GGCTAGCTACAACGA GGGGTACG	2740
4625	CCCACUGG G CCAGCCCU	1039	AGGGCTGG GGCTAGCTACAACGA CCAGTGGG	2741
4629	CUGGGCCA G CCCUGCAG	1040	CTGCAGGG GGCTAGCTACAACGA TGGCCCAG	2742
4634	CCAGCCCU G CAGCCCAA	1041	TTGGGCTG GGCTAGCTACAACGA AGGGCTGG	2743
4637	GCCCUGCA G CCCAAAAC	1042	GTTTTGGG GGCTAGCTACAACGA TGCAGGGC	2744
4644	AGCCCAAA A CCCAGGGC	1043	GCCCTGGG GGCTAGCTACAACGA TTTGGGCT	2745
4651	AACCCAGG G CAACAAGC	1044	GCTTGTTG GGCTAGCTACAACGA CCTGGGTT	2746
4654	CCAGGGCA A CAAGCCCG	1045	CGGGCTTG GGCTAGCTACAACGA TGCCCTGG	2747
4658	GGCAACAA G CCCGUUAG	1046	CTAACGGG GGCTAGCTACAACGA TTGTTGCC	2748
4662	ACAAGCCC G UUAGCCCC	1047	GGGGCTAA GGCTAGCTACAACGA GGGCTTGT	2749
4666	GCCCGUUA G CCCCAGGG	1048	CCCTGGGG GGCTAGCTACAACGA TAACGGGC	2750
4676	CCCAGGGG A UCACUGGC	1049	GCCAGTGA GGCTAGCTACAACGA CCCCTGGG	2751
4679	AGGGGAUC A CUGGCUGG	1050	CCAGCCAG GGCTAGCTACAACGA GATCCCCT	2752
4683	GAUCACUG G CUGGCCUG	1051	CAGGCCAG GGCTAGCTACAACGA CAGTGATC	2753
4687	ACUGGCUG G CCUGAGCA	1052	TGCTCAGG GGCTAGCTACAACGA CAGCCAGT	2754
4693	UGGCCUGA G CAACAUCU	1053	AGATGTTG GGCTAGCTACAACGA TCAGGCCA	2755
4696	CCUGAGCA A CAUCUCGG	1054	CCGAGATG GGCTAGCTACAACGA TGCTCAGG	2756
4698	UGAGCAAC A UCUCGGGA	1055	TCCCGAGA GGCTAGCTACAACGA GTTGCTCA	2757
4707	UCUCGGGA G UCCUCUAG	1056	CTAGAGGA GGCTAGCTACAACGA TCCCGAGA	2758
4715	GUCCUCUA G CAGGCCUA	1057	TAGGCCTG GGCTAGCTACAACGA TAGAGGAC	2759
4719	UCUAGCAG G CCUAAGAC	1058	GTCTTAGG GGCTAGCTACAACGA CTGCTAGA	2760
4726	GGCCUAAG A CAUGUGAG	1059	CTCACATG GGCTAGCTACAACGA CTTAGGCC	2761
4728	CCUAAGAC A UGUGAGGA	1060	TCCTCACA GGCTAGCTACAACGA GTCTTAGG	2762
4730	UAAGACAU G UGAGGAGG	1061	CCTCCTCA GGCTAGCTACAACGA ATGTCTTA	2763
4752	GAAAAAA G CAAAAAGC	1062	GCTTTTTG GGCTAGCTACAACGA TTTTTTTC	2764
4759	AGCAAAAA G CAAGGGAG	1063	CTCCCTTG GGCTAGCTACAACGA TTTTTGCT	2765
4777	AAAGAGAA A CCGGGAGA	1064	TCTCCCGG GGCTAGCTACAACGA TTCTCTTT	2766
4788	GGGAGAAG G CAUGAGAA	1065	TTCTCATG GGCTAGCTACAACGA CTTCTCCC	2767
4790	GAGAAGGC A UGAGAAAG	1066	CTTTCTCA GGCTAGCTACAACGA GCCTTCTC	2768
4800	GAGAAAGA A UUUGAGAC	1067	GTCTCAAA GGCTAGCTACAACGA TCTTTCTC	2769
4807	AAUUUGAG A CGCACCAU	1068	ATGGTGCG GGCTAGCTACAACGA CTCAAATT	2770
4809	UUUGAGAC G CACCAUGU	1069	ACATGGTG GGCTAGCTACAACGA GTCTCAAA	2771
4811	UGAGACGC A CCAUGUGG	1070	CCACATGG GGCTAGCTACAACGA GCGTCTCA	2772
4814	GACGCACC A UGUGGGCA	1071	TGCCCACA GGCTAGCTACAACGA GGTGCGTC	2773
4816	CGCACCAU G UGGGCACG	1072	CGTGCCCA GGCTAGCTACAACGA ATGGTGCG	2774
4820	CCAUGUGG G CACGGAGG	1073	CCTCCGTG GGCTAGCTACAACGA CCACATGG	2775
4822	AUGUGGGC A CGGAGGGG	1074	CCCCTCCG GGCTAGCTACAACGA GCCCACAT	2776
4832	GGAGGGG A CGGGGCUC	1075	GAGCCCCG GGCTAGCTACAACGA CCCCCTCC	2777
4837	GGGACGGG G CUCAGCAA	1076	TTGCTGAG GGCTAGCTACAACGA CCCGTCCC	2778
4842	GGGGCUCA G CAAUGCCA	1077	TGGCATTG GGCTAGCTACAACGA TGAGCCCC	2779
4845	GCUCAGCA A UGCCAUUU	1078	AAATGGCA GGCTAGCTACAACGA TGCTGAGC	2780
4847	UCAGCAAU G CCAUUUCA	1079	TGAAATGG GGCTAGCTACAACGA ATTGCTGA	2781
4850	GCAAUGCC A UUUCAGUG	1080	CACTGAAA GGCTAGCTACAACGA GGCATTGC	2782
4856	CCAUUUCA G UGGCUUCC	1081	GGAAGCCA GGCTAGCTACAACGA TGAAATGG	2783
4859	UUUCAGUG G CUUCCCAG	1082	CTGGGAAG GGCTAGCTACAACGA CACTGAAA	2784
4867	GCUUCCCA G CUCUGACC	1083	GGTCAGAG GGCTAGCTACAACGA TGGGAAGC	2785
4873	CAGCUCUG A CCCUUCUA	1084	TAGAAGGG GGCTAGCTACAACGA CAGAGCTG	2786
4881	ACCCUUCU A CAUUUGAG	1085	CTCAAATG GGCTAGCTACAACGA AGAAGGGT	2787
4883	CCUUCUAC A UUUGAGGG	1086	CCCTCAAA GGCTAGCTACAACGA GTAGAAGG	2788
4891	AUUUGAGG G CCCAGCCA	1087	TGGCTGGG GGCTAGCTACAACGA CCTCAAAT	2789
4896	AGGGCCCA G CCAGGAGC	1088	GCTCCTGG GGCTAGCTACAACGA TGGGCCCT	2790
			-5155 OCTACCIACAACA TOGGCCCT	2,20

4903 AGCCAGGA G CAGAUGGA 1089 TCCATCTG GGCTAGCTACAACGA TCCTGGCT 4907 AGGAGCAG A UGGACAGC 1090 GCTGTCCA GGCTAGCTACAACGA CTGCTCCT 4911 GCAGAUGG A CAGCGAUG 1091 CATCGCTG GGCTAGCTACAACGA CCATCTGC 4914 GAUGGACA G CGAUGAGG 1092 CCTCATCG GGCTAGCTACAACGA TGTCCATC 4917 GGACAGCG A UGAGGGGA 1093 TCCCCTCA GGCTAGCTACAACGA CGCTGTCC 4925 AUGAGGGG A CAUUUUCU 1094 AGAAAATG GGCTAGCTACAACGA CCCCTCAT 4927 GAGGGGAC A UUUUCUGG 1095 CCAGAAAA GGCTAGCTACAACGA CCCCTCAT 4936 UUUUCUGG A UUCUGGGA 1096 TCCCAGAA GGCTAGCTACAACGA CCCAGAAAA 4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCT 4963 GGACAAAU A UCUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TTCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTCCAAAAA 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTA 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAT 4998 AGACCUUU A CCUUUACC 1104 GGTAAAGG GGCTAGCTACAACGA CTAAAAT 4998 AGACCUUU A CCUUUGGA 1105 TCCATAGG GGCTAGCTACAACGA AAAGGTC	2792 2793 2794 2795 2796
4911 GCAGAUGG A CAGCGAUG 4914 GAUGGACA G CGAUGAGG 1092 CCTCATCG GGCTAGCTACAACGA TGTCCATCG 4917 GGACAGCG A UGAGGGGA 1093 TCCCCTCA GGCTAGCTACAACGA CGCTGTCC 4925 AUGAGGGG A CAUUUUCU 1094 AGAAAATG GGCTAGCTACAACGA CCCCTCAT 4927 GAGGGGAC A UUUUCUGG 1095 CCAGAAAA GGCTAGCTACAACGA CCCCTCAT 4936 UUUUCUGG A UUCUGGGA 1096 TCCCAGAA GGCTAGCTACAACGA CCAGAAAA 4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CTCCCAGA 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA TTCCCAAAAA 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TTCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTCCAAAAA 4985 UAAAGCAA A UUUUAGAC 1104 GGTAAAAG GGCTAGCTACAACGA TTGCTTTC 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAAT	2793 2794 2795 2796
4914 GAUGGACA G CGAUGAGG 1092 CCTCATCG GGCTAGCTACAACGA TGTCCATC 4917 GGACAGCG A UGAGGGGA 1093 TCCCCTCA GGCTAGCTACAACGA CGCTGTCC 4925 AUGAGGGG A CAUUUUCU 1094 AGAAAATG GGCTAGCTACAACGA CCCCTCAT 4927 GAGGGGAC A UUUUCUGG 1095 CCAGAAAA GGCTAGCTACAACGA GTCCCCTC 4936 UUUUCUGG A UUCUGGGA 1096 TCCCAGAA GGCTAGCTACAACGA CCAGAAAA 4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCTT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA TTCCAAAAA 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TTCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAATT	2794 2795 2796
4917 GGACAGCG A UGAGGGGA 1093 TCCCCTCA GGCTAGCTACAACGA CGCTGTCC 4925 AUGAGGGG A CAUUUUCU 1094 AGAAAATG GGCTAGCTACAACGA CCCCTCAT 4927 GAGGGAC A UUUUCUGG 1095 CCAGAAAA GGCTAGCTACAACGA GTCCCCTC 4936 UUUUCUGG A UUCUGGGA 1096 TCCCAGAA GGCTAGCTACAACGA CCAGAAAA 4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTT 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAAT	2795 2796
4925 AUGAGGG A CAUUUUCU 1094 AGAAAATG GGCTAGCTACAACGA CCCCTCAT 4927 GAGGGGAC A UUUUCUGG 1095 CCAGAAAA GGCTAGCTACAACGA GTCCCCTCA 4936 UUUUCUGG A UUCUGGGA 1096 TCCCAGAA GGCTAGCTACAACGA CCAGAAAA 4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTT 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAAT	2796
4927 GAGGGGAC A UUUUCUGG 1095 CCAGAAAA GGCTAGCTACAACGA GTCCCCTC 4936 UUUUCUGG A UUCUGGGA 1096 TCCCAGAA GGCTAGCTACAACGA CCAGAAAA 4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTI 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAATT	
4936 UUUUCUGG A UUCUGGGA 1096 TCCCAGAA GGCTAGCTACAACGA CCAGAAAA 4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTT 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAATTAGAACGA AAUUUUAGAC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAATTAGAACGA AAUUUUAGAC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAATTAGAACGA AAUUUUAGAC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAATTAGAACGA AAUUUUAGA A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAATTAGAACGA CTAAAAATTAGAACGAACGA CTAAAAATTAGAACGA CTAAAAATTAGAACGAACGA CTAAAAATTAGAACGAACGA CTAAAAATTAGAACGAACGA CTAAAAAATTAGAACGAACGA CTAAAAATTAGAACGAACGAACGA CTAAAAATTAGAACGAACGAACGAACGAACGAACGAACGA	2/3/
4946 UCUGGGAG G CAAGAAAA 1097 TTTTCTTG GGCTAGCTACAACGA CTCCCAGA 4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTA 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAATT	2700
4957 AGAAAAGG A CAAAUAUC 1098 GATATTTG GGCTAGCTACAACGA CCTTTTCT 4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCCT 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTA 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAAG GGCTAGCTACAACGA CTAAAAAT	-
4961 AAGGACAA A UAUCUUUU 1099 AAAAGATA GGCTAGCTACAACGA TTGTCCTT 4963 GGACAAAU A UCUUUUUU 1100 AAAAAAGA GGCTAGCTACAACGA ATTTGTCC 4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTA 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAGG GGCTAGCTACAACGA CTAAAAAT	
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4975 UUUUUGGA A CUAAAGCA 1101 TGCTTTAG GGCTAGCTACAACGA TCCAAAAA 4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTG 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTA 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAGG GGCTAGCTACAACGA CTAAAAT	
4981 GAACUAAA G CAAAUUUU 1102 AAAATTTG GGCTAGCTACAACGA TTTAGTTC 4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTI 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAGG GGCTAGCTACAACGA CTAAAAAT	
4985 UAAAGCAA A UUUUAGAC 1103 GTCTAAAA GGCTAGCTACAACGA TTGCTTTI 4992 AAUUUUAG A CCUUUACC 1104 GGTAAAGG GGCTAGCTACAACGA CTAAAAT	
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4930 Managed II Comment	
5002 CUUUACCU A UGGAAGUG 1106 CACTTCCA GGCTAGCTACAACGA AGGTAAAG	
5008 CUAUGGAA G UGGUUCUA 1107 TAGAACCA GGCTAGCTACAACGA TTCCATA	
5011 UGGAAGUG G UUCUAUGU 1108 ACATAGAA GGCTAGCTACAACGA CACTTCC	1
5016 GUGGUUCU A UGUCCAUU 1109 AATGGACA GGCTAGCTACAACGA AGAACCA	
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5028 CCAUUCUC A UUCGUGGC 1112 GCCACGAA GGCTAGCTACAACGA GAGAATG	
5032 UCUCAUUC G UGGCAUGU 1113 ACATGCCA GGCTAGCTACAACGA GAATGAG	
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5037 UUCGUGGC A UGUUUUGA 1115 TCAAAACA GGCTAGCTACAACGA GCCACGA	
5039 CGUGGCAU G UUUUGAUU 1116 AATCAAAA GGCTAGCTACAACGA ATGCCAC	3 2818
5045 AUGUUUUG A UUUGUAGC 1117 GCTACAAA GGCTAGCTACAACGA CAAAACA	
5049 UUUGAUUU G UAGCACUG 1118 CAGTGCTA GGCTAGCTACAACGA AAATCAA	-
5052 GAUUUGUA G CACUGAGG 1119 CCTCAGTG GGCTAGCTACAACGA TACAAAT	
5054 UUUGUAGC A CUGAGGGU 1120 ACCCTCAG GGCTAGCTACAACGA GCTACAA	
5061 CACUGAGG G UGGCACUC 1121 GAGTGCCA GGCTAGCTACAACGA CCTCAGT	3 2823
5064 UGAGGGUG G CACUCAAC 1122 GTTGAGTG GGCTAGCTACAACGA CACCCTC	
5066 AGGGUGGC A CUCAACUC 1123 GAGTTGAG GGCTAGCTACAACGA GCCACCC	r 2825
5071 GGCACUCA A CUCUGAGC 1124 GCTCAGAG GGCTAGCTACAACGA TGAGTGC	
5078 AACUCUGA G CCCAUACU 1125 AGTATGGG GGCTAGCTACAACGA TCAGAGT	r 2827
5082 CUGAGCCC A UACUUUUG 1126 CAAAAGTA GGCTAGCTACAACGA GGGCTCA	G 2828
5084 GAGCCCAU A CUUUUGGC 1127 GCCAAAAG GGCTAGCTACAACGA ATGGGCT	
5091 UACUUUUG G CUCCUCUA 1128 TAGAGGAG GGCTAGCTACAACGA CAAAAGT	
51.00 CUCCUCUA G UAAGAUGC 1129 GCATCTTA GGCTAGCTACAACGA TAGAGGA	G 2831
5105 CUAGUAAG A UGCACUGA 1130 TCAGTGCA GGCTAGCTACAACGA CTTACTA	G 2832
5107 AGUAAGAU G CACUGAAA 1131 TTTCAGTG GGCTAGCTACAACGA ATCTTAC	
5109 UAAGAUGC A CUGAAAAC 1132 GTTTTCAG GGCTAGCTACAACGA GCATCTT	A 2834
5116 CACUGAAA A CUUAGCCA 1133 TGGCTAAG GGCTAGCTACAACGA TTTCAGT	G 2835
5121 AAAACUUA G CCAGAGUU 1134 AACTCTGG GGCTAGCTACAACGA TAAGTTT	T 2836
5127 UAGCCAGA G UUAGGUUG 1135 CAACCTAA GGCTAGCTACAACGA TCTGGCT	A 2837
5132 AGAGUUAG G UUGUCUCC 1136 GGAGACAA GGCTAGCTACAACGA CTAACTC	T 2838
5135 GUUAGGUU G UCUCCAGG 1137 CCTGGAGA GGCTAGCTACAACGA AACCTAA	C 2839
5143 GUCUCCAG G CCAUGAUG 1138 CATCATGG GGCTAGCTACAACGA CTGGAGA	C 2840
5146 UCCAGGCC A UGAUGGCC 1139 GGCCATCA GGCTAGCTACAACGA GGCCTGG	A 2841
5149 AGGCCAUG A UGGCCUUA 1140 TAAGGCCA GGCTAGCTACAACGA CATGGCC	T 2842

				
5152	CCAUGAUG G CCUUACAC	1141	GTGTAAGG GGCTAGCTACAACGA CATCATGG	2843
5157	AUGGCCUU A CACUGAAA	1142	TTTCAGTG GGCTAGCTACAACGA AAGGCCAT	2844
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5171	AAAAUGUC A CAUUCUAU	1146	ATAGAATG GGCTAGCTACAACGA GACATTIT	2848
5173	AAUGUCAC A UUCUAUUU	1147	AAATAGAA GGCTAGCTACAACGA GTGACATT	2849
5178	CACAUUCU A UUUUGGGU	1148	ACCCAAAA GGCTAGCTACAACGA AGAATGTG	2850
5185	UAUUUUGG G UAUUAAUA	1149	TATTAATA GGCTAGCTACAACGA CCAAAATA	2851
5187	UUUUGGGU A UUAAUAUA	1150	TATATTAA GGCTAGCTACAACGA ACCCAAAA	2852
5191	GGGUAUUA A UAUAUAGU	1151	ACTATATA GGCTAGCTACAACGA TAATACCC	2853
5193	GUAUUAAU A UAUAGUCC	1152	GGACTATA GGCTAGCTACAACGA ATTAATAC	2854
5195	AUUAAUAU A UAGUCCAG	1153	CTGGACTA GGCTAGCTACAACGA ATATTAAT	2855
5198	AAUAUAUA G UCCAGACA	1154	TGTCTGGA GGCTAGCTACAACGA TATATATT	2856
5204	UAGUCCAG A CACUUAAC	1155	GTTAAGTG GGCTAGCTACAACGA CTGGACTA	2857
5206	GUCCAGAC A CUUAACUC	1156	GAGTTAAG GGCTAGCTACAACGA GTCTGGAC	2858
5211	GACACUUA A CUCAAUUU	1157	AAATTGAG GGCTAGCTACAACGA TAAGTGTC	2859
5216	UUAACUCA A UUUCUUGG	1158	CCAAGAAA GGCTAGCTACAACGA TGAGTTAA	2860
5224	AUUUCUUG G UAUUAUUC	1159	GAATAATA GGCTAGCTACAACGA CAAGAAAT	2861
5226	UUCUUGGU A UUAUUCUG	1160	CAGAATAA GGCTAGCTACAACGA ACCAAGAA	2862
5229	UUGGUAUU A UUCUGUUU	1161	AAACAGAA GGCTAGCTACAACGA AATACCAA	2863
5234	AUUAUUCU G UUUUGCAC	1162	GTGCAAAA GGCTAGCTACAACGA AGAATAAT	2864
5239	UCUGUUUU G CACAGUUA	1163	TAACTGTG GGCTAGCTACAACGA AAAACAGA	2865
5241	UGUUUUGC A CAGUUAGU	1164	ACTAACTG GGCTAGCTACAACGA GCAAAACA	2866
5244	UUUGCACA G UUAGUUGU	1165	ACAACTAA GGCTAGCTACAACGA TGTGCAAA	2867
5248	CACAGUUA G UUGUGAAA	1166	TTTCACAA GGCTAGCTACAACGA TAACTGTG	2868
5251	AGUUAGUU G UGAAAGAA	1167	TTCTTTCA GGCTAGCTACAACGA AACTAACT	2869
5261	GAAAGAAA G CUGAGAAG	1168	CTTCTCAG GGCTAGCTACAACGA TTTCTTTC	2870
5271	UGAGAAGA A UGAAAAUG	1169	CATTTCA GGCTAGCTACAACGA TCTTCTCA	2871
5277	GAAUGAAA A UGCAGUCC	1170	GGACTGCA GGCTAGCTACAACGA TTTCATTC	2872
5279	AUGAAAAU G CAGUCCUG	1171	CAGGACTG GGCTAGCTACAACGA ATTTTCAT	2873
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5294	UGAGGAGA G UUUUCUCC	1173	GGAGAAAA GGCTAGCTACAACGA TCTCCTCA	2875
5303	UUUUCUCC A UAUCAAAA	1174	TTTTGATA GGCTAGCTACAACGA GGAGAAAA	2876
5305	UUCUCCAU A UCAAAACG	1175	CGTTTTGA GGCTAGCTACAACGA ATGGAGAA	2877
5311	AUAUCAAA A CGAGGGCU	1176	AGCCCTCG GGCTAGCTACAACGA TTTGATAT	2878
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5321	GAGGGCUG A UGGAGGAA	1178	TTCCTCCA GGCTAGCTACAACGA CAGCCCTC	2880
5334	GGAAAAAG G UCAAUAAG	1179	CTTATTGA GGCTAGCTACAACGA CTTTTTCC	2881
5338	AAAGGUCA A UAAGGUCA	1180	TGACCTTA GGCTAGCTACAACGA TGACCTTT	2882
5343	UCAAUAAG G UCAAGGGA	1181	TCCCTTGA GGCTAGCTACAACGA CTTATTGA	2883
5354	AAGGGAAG A CCCCGUCU	1182	AGACGGGG GGCTAGCTACAACGA CTTCCCTT	2884
5359	AAGACCCC G UCUCUAUA	1183	TATAGAGA GGCTAGCTACAACGA GGGGTCTT	2885
5365	CCGUCUCU A UACCAACC	1184	GGTTGGTA GGCTAGCTACAACGA AGAGACGG	2886
5367	GUCUCUAU A CCAACCAA	1185	TTGGTTGG GGCTAGCTACAACGA ATAGAGAC	2887
5371	CUAUACCA A CCAAACCA	1186	TGGTTTGG GGCTAGCTACAACGA TGGTATAG	2888
5376	CCAACCAA A CCAAUUCA	1187	TGAATTGG GGCTAGCTACAACGA TTGGTTGG	2889
5380	CCAAACCA A UUCACCAA	1188	TTGGTGAA GGCTAGCTACAACGA TGGTTTGG	2890
5384	ACCAAUUC A CCAACACA	1189	TGTGTTGG GGCTAGCTACAACGA GAATTGGT	2891
5388	AUUCACCA A CACAGUUG	1190	CAACTGTG GGCTAGCTACAACGA TGGTGAAT	2892
5390	UCACCAAC A CAGUUGGG	1191	CCCAACTG GGCTAGCTACAACGA GTTGGTGA	2893
5393	CCAACACA G UUGGGACC	1192	GGTCCCAA GGCTAGCTACAACGA TGTGTTGG	2894
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5399	CAGUUGGG A CCCAAAAC	1193	GTTTTGGG GGCTAGCTACAACGA CCCAACTG	2895
5406	GACCCAAA A CACAGGAA	1194	TTCCTGTG GGCTAGCTACAACGA TTTGGGTC	2896
5408	CCCAAAAC A CAGGAAGU	1195	ACTTCCTG GGCTAGCTACAACGA GTTTTGGG	2897
5415	CACAGGAA G UCAGUCAC	1196	GTGACTGA GGCTAGCTACAACGA TTCCTGTG	2898
5419	GGAAGUCA G UCACGUUU	1197	AAACGTGA GGCTAGCTACAACGA TGACTTCC	2899
5422	AGUCAGUC A CGUUUCCU	1198	AGGAAACG GGCTAGCTACAACGA GACTGACT	2900
5424	UCAGUCAC G UUUCCUUU	1199	AAAGGAAA GGCTAGCTACAACGA GTGACTGA	2901
5435	UCCUUUUC A UUUAAUGG	1200	CCATTAAA GGCTAGCTACAACGA GAAAAGGA	2902
5440	UUCAUUUA A UGGGGAUU	1201	AATCCCCA GGCTAGCTACAACGA TAAATGAA	2903
5446	UAAUGGGG A UUCCACUA	1202	TAGTGGAA GGCTAGCTACAACGA CCCCATTA	2904
5451	GGGAUUCC A CUAUCUCA	1203	TGAGATAG GGCTAGCTACAACGA GGAATCCC	2905
5454	AUUCCACU A UCUCACAC	1204	GTGTGAGA GGCTAGCTACAACGA AGTGGAAT	2906
5459	ACUAUCUC A CACUAAUC	1205	GATTAGTG GGCTAGCTACAACGA GAGATAGT	2907
5461	UAUCUCAC A CUAAUCUG	1206	CAGATTAG GGCTAGCTACAACGA GTGAGATA	2908
5465	UCACACUA A UCUGAAAG	1207	CTTTCAGA GGCTAGCTACAACGA TAGTGTGA	2909
5475	CUGAAAGG A UGUGGAAG	1208	CTTCCACA GGCTAGCTACAACGA CCTTTCAG	2910
5477	GAAAGGAU G UGGAAGAG	1209	CTCTTCCA GGCTAGCTACAACGA ATCCTTTC	2911
5485	GUGGAAGA G CAUUAGCU	1210	AGCTAATG GGCTAGCTACAACGA TCTTCCAC	2912
5487	GGAAGAGC A UUAGCUGG	1211	CCAGCTAA GGCTAGCTACAACGA GCTCTTCC	2913
5491	GAGCAUUA G CUGGCGCA	1212	TGCGCCAG GGCTAGCTACAACGA TAATGCTC	2914
5495	AUUAGCUG G CGCAUAUU	1213	AATATGCG GGCTAGCTACAACGA CAGCTAAT	2915
5497	UAGCUGGC G CAUAUUAA	1214	TTAATATG GGCTAGCTACAACGA GCCAGCTA	2916
5499	GCUGGCGC A UAUUAAGC	1215	GCTTAATA GGCTAGCTACAACGA GCGCCAGC	2917
5501	UGGCGCAU A UUAAGCAC	1216	GTGCTTAA GGCTAGCTACAACGA ATGCGCCA	2918
5506	CAUAUUAA G CACUUUAA	1217	TTAAAGTG GGCTAGCTACAACGA TTAATATG	2919
5508	UAUUAAGC A CUUUAAGC	1218	GCTTAAAG GGCTAGCTACAACGA GCTTAATA	2920
5515	CACUUUAA G CUCCUUGA	1219	TCAAGGAG GGCTAGCTACAACGA TTAAAGTG	2921
5524	CUCCUUGA G UAAAAAGG	1220	CCTTTTTA GGCTAGCTACAACGA TCAAGGAG	2922
5532	GUAAAAAG G UGGUAUGU	1221	ACATACCA GGCTAGCTACAACGA CTTTTTAC	2923
5535	AAAAGGUG G UAUGUAAU	1222	ATTACATA GGCTAGCTACAACGA CACCTTTT	2924
5537	AAGGUGGU A UGUAAUUU	1223	AAATTACA GGCTAGCTACAACGA ACCACCTT	2925
5539	GGUGGUAU G UAAUUUAU	1224	ATAAATTA GGCTAGCTACAACGA ATACCACC	2926
5542	GGUAUGUA A UUUAUGCA	1225	TGCATAAA GGCTAGCTACAACGA TACATACC	2927
5546	UGUAAUUU A UGCAAGGU	1226	ACCTTGCA GGCTAGCTACAACGA AAATTACA	2928
5548	UAAUUUAU G CAAGGUAU	1227	ATACCTTG GGCTAGCTACAACGA ATAAATTA	2929
5553	UAUGCAAG G UAUUUCUC	1228	GAGAAATA GGCTAGCTACAACGA CTTGCATA	2930
5555	UGCAAGGU A UUUCUCCA	1229	TGGAGAAA GGCTAGCTACAACGA ACCTTGCA	2931
5564	UUUCUCCA G UUGGGACU	1230	AGTCCCAA GGCTAGCTACAACGA TGGAGAAA	2932
5570	CAGUUGGG A CUCAGGAU	1231	ATCCTGAG GGCTAGCTACAACGA CCCAACTG	2933
5577	GACUCAGG A UAUUAGUU	1232	AACTAATA GGCTAGCTACAACGA CCTGAGTC	2934
5579	CUCAGGAU A UUAGUUAA	1233	TTAACTAA GGCTAGCTACAACGA ATCCTGAG	2935
5583	GGAUAUUA G UUAAUGAG	1234	CTCATTAA GGCTAGCTACAACGA TAATATCC	2936
5587	AUUAGUUA A UGAGCCAU	1235	ATGGCTCA GGCTAGCTACAACGA TAACTAAT	2937
5591	GUUAAUGA G CCAUCACU	1236	AGTGATGG GGCTAGCTACAACGA TCATTAAC	2938
5594	AAUGAGCC A UCACUAGA	1237	TCTAGTGA GGCTAGCTACAACGA GGCTCATT	2939
5597	GAGCCAUC A CUAGAAGA	1238	TCTTCTAG GGCTAGCTACAACGA GATGGCTC	2940
5609	GAAGAAAA G CCCAUUUU	1239	AAAATGGG GGCTAGCTACAACGA TTTTCTTC	2941
5613	AAAAGCCC A UUUUCAAC	1240	GTTGAAAA GGCTAGCTACAACGA GGGCTTTT	2942
5620	CAUUUUCA A CUGCUUUG	1241	CAAAGCAG GGCTAGCTACAACGA TGAAAATG	2943
5623	UUUCAACU G CUUUGAAA	1242	TTTCAAAG GGCTAGCTACAACGA AGTTGAAA	2944
5631	GCUUUGAA A CUUGCCUG	1243	CAGGCAAG GGCTAGCTACAACGA TTCAAAGC	2945
5635	UGAAACUU G CCUGGGGU	1244	ACCCCAGG GGCTAGCTACAACGA AAGTTTCA	2946
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5642	UGCCUGGG G UCUGAGCA	1245	TGCTCAGA GGCTAGCTACAACGA CCCAGGCA	2947
5648	GGGUCUGA G CAUGAUGG	1246	CCATCATG GGCTAGCTACAACGA TCAGACCC	2948
5650	GUCUGAGC A UGAUGGGA	1247	TCCCATCA GGCTAGCTACAACGA GCTCAGAC	2949
5653	UGAGCAUG A UGGGAAUA	1248	TATTCCCA GGCTAGCTACAACGA CATGCTCA	2950
5659	UGAUGGGA A UAGGGAGA	1249	TCTCCCTA GGCTAGCTACAACGA TCCCATCA	2951
5667	AUAGGGAG A CAGGGUAG	1250	CTACCCTG GGCTAGCTACAACGA CTCCCTAT	2952
5672	GAGACAGG G UAGGAAAG	1251	CTTTCCTA GGCTAGCTACAACGA CCTGTCTC	2953
5682	AGGAAAGG G CGCCUACU	1252	AGTAGGCG GGCTAGCTACAACGA CCTTTCCT	2954
5684	GAAAGGGC G CCUACUCU	1253	AGAGTAGG GGCTAGCTACAACGA GCCCTTTC	2955
5688	GGGCGCCU A CUCUUCAG	1254	CTGAAGAG GGCTAGCTACAACGA AGGCGCCC	2956
5698	UCUUCAGG G UCUAAAGA	1255	TCTTTAGA GGCTAGCTACAACGA CCTGAAGA	2957
5706	GUCUAAAG A UCAAGUGG	1256	CCACTTGA GGCTAGCTACAACGA CTTTAGAC	2958
5711	AAGAUCAA G UGGGCCUU	1257	AAGGCCCA GGCTAGCTACAACGA TTGATCTT	2959
5715	UCAAGUGG G CCUUGGAU	1258	ATCCAAGG GGCTAGCTACAACGA CCACTTGA	2960
5722	GGCCUUGG A UCGCUAAG	1259	CTTAGCGA GGCTAGCTACAACGA CCAAGGCC	2961
5725	CUUGGAUC G CUAAGCUG	1260	CAGCTTAG GGCTAGCTACAACGA GATCCAAG	2962
5730	AUCGCUAA G CUGGCUCU	1261	AGAGCCAG GGCTAGCTACAACGA TTAGCGAT	2963
5734	CUAAGCUG G CUCUGUUU	1262	AAACAGAG GGCTAGCTACAACGA CAGCTTAG	2964
5739	CUGGCUCU G UUUGAUGC	1263	GCATCAAA GGCTAGCTACAACGA AGAGCCAG	2965
5744	UCUGUUUG A UGCUAUUU	1264	AAATAGCA GGCTAGCTACAACGA CAAACAGA	2966
5746	UGUUUGAU G CUAUUUAU	1265	ATAAATAG GGCTAGCTACAACGA ATCAAACA	2967
5749	UUGAUGCU A UUUAUGCA	1266	TGCATAAA GGCTAGCTACAACGA AGCATCAA	2968
5753	UGCUAUUU A UGCAAGUU	1267	AACTTGCA GGCTAGCTACAACGA AAATAGCA	2969
5755	CUAUUUAU G CAAGUUAG	1268	CTAACTTG GGCTAGCTACAACGA ATAAATAG	2970
5759	UUAUGCAA G UUAGGGUC	1269	GACCCTAA GGCTAGCTACAACGA TTGCATAA	2971
5765	AAGUUAGG G UCUAUGUA	1270	TACATAGA GGCTAGCTACAACGA CCTAACTT	2972
5769	UAGGGUCU A UGUAUUUA	1271	TAAATACA GGCTAGCTACAACGA AGACCCTA	2973
5771	GGGUCUAU G UAUUUAGG	1272	CCTAAATA GGCTAGCTACAACGA ATAGACCC	2974
5773	GUCUAUGU A UUUAGGAU	1273	ATCCTAAA GGCTAGCTACAACGA ACATAGAC	2975
5780	UAUUUAGG A UGCGCCUA	1274	TAGGCGCA GGCTAGCTACAACGA CCTAAATA	2976
5782	UUUAGGAU G CGCCUACU	1275	AGTAGGCG GGCTAGCTACAACGA ATCCTAAA	2977
5784	UAGGAUGC G CCUACUCU	1276	AGAGTAGG GGCTAGCTACAACGA GCATCCTA	2978
5788	AUGCGCCU A CUCUUCAG	1277	CTGAAGAG GGCTAGCTACAACGA AGGCGCAT	2979
5798	UCUUCAGG G UCUAAAGA	1278	TCTTTAGA GGCTAGCTACAACGA CCTGAAGA	2980
5806	GUCUAAAG A UCAAGUGG	1279	CCACTTGA GGCTAGCTACAACGA CTTTAGAC	2981
5811	AAGAUCAA G UGGGCCUU	1280	AAGGCCCA GGCTAGCTACAACGA TTGATCTT	2982
5815	UCAAGUGG G CCUUGGAU	1.281	ATCCAAGG GGCTAGCTACAACGA CCACTTGA	2983
5822	GGCCUUGG A UCGCUAAG	1282	CTTAGCGA GGCTAGCTACAACGA CCAAGGCC	2984
5825	CUUGGAUC G CUAAGCUG	1283	CAGCTTAG GGCTAGCTACAACGA GATCCAAG	2985
5830	AUCGCUAA G CUGGCUCU	1284	AGAGCCAG GGCTAGCTACAACGA TTAGCGAT	2986
5834	CUAAGCUG G CUCUGUUU	1285	AAACAGAG GGCTAGCTACAACGA CAGCTTAG	2987
5839	CUGGCUCU G UUUGAUGC	1286	GCATCAAA GGCTAGCTACAACGA AGAGCCAG	2988
5844	UCUGUUUG A UGCUAUUU	1287	AAATAGCA GGCTAGCTACAACGA CAAACAGA	2989
5846	UGUUUGAU G CUAUUUAU	1288	ATAAATAG GGCTAGCTACAACGA ATCAAACA	2990
5849	UUGAUGCU A UUUAUGCA	1289	TGCATAAA GGCTAGCTACAACGA AGCATCAA	2991
5853	UGCUAUUU A UGCAAGUU	1290	AACTTGCA GGCTAGCTACAACGA AAATAGCA	2992
5855	CUAUUUAU G CAAGUUAG	1291	CTAACTTG GGCTAGCTACAACGA ATAAATAG	
5859	UUAUGCAA G UUAGGGUC	1292	GACCCTAA GGCTAGCTACAACGA TTGCATAA	
5865	AAGUUAGG G UCUAUGUA	1293	TACATAGA GGCTAGCTACAACGA CCTAACTT	
5869	UAGGGUCU A UGUAUUUA	1294	TAAATACA GGCTAGCTACAACGA AGACCCTA	2996
5871	GGGUCUAU G UAUUUAGG	1295	CCTAAATA GGCTAGCTACAACGA ATAGACCC	
5873	GUCUAUGU A UUUAGGAU	1296	ATCCTAAA GGCTAGCTACAACGA ACATAGAC	2998
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See					
5886 GRAUGUICU G. CACCUUCU 1299 MARAGGTO GCTTACAACGA AGACATCC 3001 5888 AUSUCUUCU G. ACCUUCUU 1300 GCAGAAGG GCTTACCTACAGGA GAGACAT 3002 5898 CACCUUCU G. CAGCCAGU 1301 ACTIGGTG GCTTACTACAGGA AGAGGTA 3002 5898 CUUCUGGA G. CCAGUCAG 1302 CTGACTGA GCTTACAACGA TECAGAGA 3004 5909 AGUCAGAA G. CUAGAAGC 1303 GCTTCTGA GCTTACAACGA TECAGACG 3006 5918 CUGGAGAG G. CAACAGUG 1305 CACTGTTG GCTTACAACGA TECTACAC 3007 5921 AGAGGCA G. GUGGUCU 1306 AFCACTG GGCTAGCTACAACGA TECTCCA 3008 5924 AGGCAACA G. UGGUUCU 1301 AGAGGCA GCTGTTT 3010 5931 AGUGGAU G. CUUCUUG 1310 AGAGGGA GCTGACTACAACGA AGCATCT 3011 5931 AGGAGAGA G. UAUCCUUC 1311 AGAGAGGA GCTACCAACGA AGCATCT 3012 5953 AGAAGAGU A UCCUUCU 1312 AGGAACA GCTGACTACAACGA ACTCTTC 3012 5953 AGAGAGUA G. UUCUUUU 1313 AAAGGAGA GCTACCAACGA ACTCTTC 3012 <t< td=""><td>5880</td><td>UAUUUAGG A UGUCUGCA</td><td>1297</td><td>TGCAGACA GGCTAGCTACAACGA CCTAAATA</td><td>2999</td></t<>	5880	UAUUUAGG A UGUCUGCA	1297	TGCAGACA GGCTAGCTACAACGA CCTAAATA	2999
See	5882	UUUAGGAU G UCUGCACC	1298	GGTGCAGA GGCTAGCTACAACGA ATCCTAAA	
S955 CACCUUCU G CAGCCAGU 1301 ACTGGCTG GGCTAGCTACAACGA AGAAGGTG 3003 5898 CUUCUGCG G CCAGUCAG 1302 CTGACTGG GGCTAGCTACAACGA TGCAGAAG 3004 5902 UGCAGCAG G UGCAGAGG 1303 GCTTCTGA GGCTAGCTACAACGA TGCAGAAG 3005 5909 AGUCAGAA G CUGAGAGG 1304 CTCTCCAG GGCTAGCTACAACGA TGCTCACA 3005 5909 AGUCAGAA G CUGAGAGG 1305 CACTGTTG GGCTAGCTACAACGA TTCTCACT 3006 5918 CUGGAGAG G CAACAGUG 1305 CACTGTTG GGCTAGCTACAACGA CTCTCCAG 3007 5921 AGAGGAG G CAACAGUG 1306 ATCCACTG GGCTAGCTACAACGA CTCTCCAG 3007 5921 AGAGAGGA G UGGAUUGC 1307 GCAATCCA GGCTAGCTACAACGA TGCTTGCCT 3008 5924 AGACAGUG G UUGCUUCU 1308 AGAGCACA GGCTAGCTACAACGA TGTTGCCT 3009 5931 AGAGGAU G CUUCUUGG 1310 CCAAGAAG GGCTAGCTACAACGA AATCCACT 3011 5931 AGAGGAGA G CUUCUUGG 1310 CCAAGAAG GGCTAGCTACAACGA AATCCACT 3012 5951 AGAGAGAA G AUGCCUCU 1311 AGAGCATA GGCTAACGAAACGA ATCCACT 3013 5953 AGAAGAGU A UCCUUCUU 1312 AGGAAGCA GGCTAGCTACAACGA ATCCTTCTC 3013 5955 AAAGAGAU A UCCUUCUU 1314 ACATGGA GGCTAGCTACAACGA ATCCTTCT 3014 5956 UUCUUUUA CUCCUUU 1315 AAAGGAA GGCTAGCTACAACGA ATCACTCT 3015 5956 UUCUUUUA CUCCUUU 1315 AAAGAGA GGCTAGCTACAACGA ATACTCT 3015 5959 UUUUAUCCA U GUAAUUUA 1315 AAATTACA GGCTAGCTACAACGA ATAATCTC 3019 5959 UUUUAUCCA U GUAAUUUA 1316 TTAAATTA GGCTAGCTACAACGA ATAATCTC 3019 5974 UCCAUGUA U UUUAACU G UAAUUUAA 1316 TTAAATTA GGCTAGCTACAACGA ATAGATTAA 3019 5979 GUAAUUUA CU GUAAGACU 1320 AGCTCAG GGCTAGCTACAACGA TAAATTAC 3020 5982 AUUUAACU G UAAAGACAA 1318 TTCTACAG GGCTAGCTACAACGA TAAATTAC 3020 5982 AUUUAACU G UAAAGACAA 1318 TTCTACAG GGCTAGCTACAACGA TAAATTAC 3020 5982 AUUUAACU G UAAAGACAA 1318 TTCTACAG GGCTAGCTACAACGA TACAATTAC 3021 5987 ACUGUAGA U AUUAACU G UAAAGAA 1318 TTCTCAG GGCTAGCTACAACGA TACAATTAC 3022 6003 UCUUAGAGA AUGAGACA 1322 TCCTGGG GGCTAGCTACAACGA TACAATTA 3021 6004 AUGAGACA AUGAGAAC 1322 TCCTGG GGCTAGCTACAA	5886	GGAUGUCU G CACCUUCU	1299		
5898 CUUCUGCA G CCAGUCAG 1302 CTGACTGG GGCTAGCTACAACGA TGCAGAAG 3005 5902 UGCAGACA G UGAGAAGC 1303 GCTTCTGA GGCTAGCTACAACGA TGCCTGCA 3005 5909 AGUCAGAA G CUGAGAAGC 1304 CTCTCCAG GGCTAGCTACAACGA TGCGTCAC 3006 5918 CUGAGAGA G CAACAGUG 1305 CACTGTTG GGCTAGCTACAACGA CTCTCCAG 3007 5921 AGAGGGCA A CAGUGGAU 1306 ATCCACTG GGCTAGCTACAACGA CTCTCCAG 3007 5921 AGAGGACA G UGAGUAGC 1307 GCAATCCA GGCTAGCTACAACGA TGCCTCT 3008 5922 AGACAACGA UGAGUUGC 1310 ATCCACTG GGCTAGCTACAACGA TGCCTCT 3009 5923 AACAGUGG A UUGCUUCU 1309 AGAAGCA GGCTAGCTACAACGA CCACTGT 3010 5931 AGUGGAUG G CUUCCUU 1310 AGAGCAA GGCTAGCTACAACGA ATCCACT 3011 5934 GGAUGAGC G CUUCCUU 1311 GAAGCATA GGCTAGCTACAACGA ATCCACT 3012 5951 GGAGAAGA G UAUGCUUCC 1311 GAAGCATA GGCTAGCTACAACGA ATCCACT 3014 5955 AGAAGGU A UGCUUCCU 1313 AGAGGACA GGCTAGCTACAACGA ATCCTCT 3014 5955 AAGAGUA G CUUCCUU 1313 AGAAGCA GGCTAGCTACAACGA ATCCTTCT 3015 5965 UUCCUUUU A UCCAUGUU 1314 TACATGGA GGCTAGCTACAACGA ATCCTTCT 3015 5966 UUUUAUCCA U GUAUUUAA 1316 TTAATTCA GGCTAGCTACAACGA ATACTCTT 3015 5977 UUAUUCCA U GUAUUUAA 1316 TTAATTCA GGCTAGCTACAACGA ATAATCCT 3018 5978 UUCUUUU A UUUAACUU 1317 AATTCAC GGCTAGCTACAACGA ATAATCCT 3020 5982 AUUUAACU G UAGAACU 1319 AGGTTCA GGCTAGCTACAACGA ATAATCCT 3020 5982 AUUUAACU G UAGAACCU 1319 AGGTTCA GGCTAGCTACAACGA ATAATCCT 3020 5983 AGAACUAA G UCUAGAGU 1320 AGCTCAGG GGCTAGCTACAACGA ATAATTCA 3020 5984 AUUUAACU G UAGAACCU 1319 AGGTTCA GGCTAGCTACAACGA ATAATTCA 3020 5985 AGAACUAA G UCUAGAGU 1320 AGCTCAGG GGCTAGCTACAACGA ATAATTCA 3020 5986 OUUUAACCA U GUUGAGAA 1321 ACTTAGAG GGCTAGCTACAACGA ATAATTAA 3020 6003 UCUAAGUA G UAACCCAA 1322 TCCTGGTTA GGCTAGCTACAACGA ATAATCAG 3020 6004 AGCUUCUA G UUGAAGU 1321 ACTTAGAG GGCTAGCTACAACGA ATAATCAG 3024 6005 CUGUUGUA G UCUAGAGU 1321 ACTTAGAG GGCTAGCTACAACGA ATACTATCAG 3024 6006	5888	AUGUCUGC A CCUUCUGC	1300	<u></u>	
S902 UGCAGCCA G UCAGAAGC 1303 GCTTCTQA GGCTAGCTACAACGA TGGCTGCA 3005			1301		
5909	5898	CUUCUGCA G CCAGUCAG	1302		
S918 CUGGAGAG G CAACAGUG 1305 CACTGTTG GGCTACCACAGA CTCTCCAG 3007	5902	UGCAGCCA G UCAGAAGC	1303	GCTTCTGA GGCTAGCTACAACGA TGGCTGCA	3005
5921 GAGAGGCA A CAGUGGAU 1306 ATCCACTG GGCTAGCTACAACGA TGCCTCC 3008	5909	AGUCAGAA G CUGGAGAG	1304		
5924 AGGCAACA G UGGAUUGC 1307 GCAATCCA GGCTACAACGA TGTTGCT 3009 5928 AACAGUGA UUGCUGCU 1308 AGCAGCAA GGCTACCAACGA CACTGTT 3010 5931 AGUGGAUU G CUGCUUCU 1309 AGAACGAG GCTACCAACGA ATCCAT 3011 5934 GGAUUGCU G CUUCUUGG 1310 CCAAGAAG GGCTACCAACGA ACCACAT 3012 5951 GAGAAGAGU A UGCUUCCU 1311 GAAGAGGUA GACACACACACACACACACACACACACACACACACACA	5918	CUGGAGAG G CAACAGUG	1305		
5928 AACAGUGG A UUGCUGCU 1308 AGCAGCAA GGCTAGCTACACGA CCACTGTT 3010 5931 AGUGGAUU G CUUCUUGU 1309 AGAAGCA GGCTAGCTACAACGA AATCCACT 3011 5934 GGAUUGCU G CUUCUUGU 1311 GAAGCAT GGCTAGCTACAACGA ACTCTCT 3012 5951 GGAGAAGA G UAUGCUUC 1311 GAAGCAT GGCTAGCTACAACGA ACTCTTCT 3013 5953 AGAAGUAU G CUUCCUUU 1312 AGGAAGA GGCTAGCTACAACGA ATACTCTT 3014 5955 AAGAGUAU G CUUCCUUU 1314 TACATGGA GGCTAGCTACAACGA ATACTCTT 3015 5965 UUCUUUC A UCCAUGUA 1314 TACATGGA GGCTAGCTACAACGA ATACTCTT 3016 5969 UUUUAUCC A UGUAUUUAA 1316 TAAATTAC GGCTAGCTACAACGA ATACATAAA 3017 5971 UUCACUU A UUUAACUG 1317 CAGTTAAAA GGCTACCAACGA ATGGATAAA 3018 5979 GUAAUUUA A CUGUAGAA 1318 TCTCTACA GGCTAGCTACAACGA ATGTATAAA 3020 5987 ACUUUAACU G UAGAGAA 1321 ACTTAGA GGCTAGCTACAACGA ATTACATGA 3021 5987 ACUUUAACU G GUCUAAGU 1321 ACTTAGAG GGCTACACAACGA TCAC	5921	GAGAGGCA A CAGUGGAU	1306	ATCCACTG GGCTAGCTACAACGA TGCCTCTC	3008
S931	5924		1307	GCAATCCA GGCTAGCTACAACGA TGTTGCCT	3009
5934 GGAUUGCU G CUUCUUGG 1310 CCAAGAAG GGCTAGCTACAACGA AGCAATCC 3012 5951 GGAGAAGA G UAUGCUUC 1311 GAAGCATA GGCTAGCTACAACGA ACTCTTCT 3013 5953 AGAAGGU A UGCUUCUU 1312 AGGAAGCA GGCTAGCTACAACGA ATCCTTCT 3014 5955 AACAGGUAU G CUUCCUUU 1313 AAAGGAG GGCTAGCTACAACGA ATACTCTT 3015 5965 UUCUUUU A UCCAUGUA 1314 TACATGGA GGCTAGCTACAACGA ATACGAAGA 3016 5969 UUUUAUCC A UGUAUUU 1315 AAATTACA GGCTAGCTACAACGA AGGATAAAA 3017 5971 UUAUGCUA G UAAUUUAA 1316 TTTATACA GGCTAGCTACAACGA TACATGGA 3019 5974 UCCAUGUA A UUUACUG 1317 CAGTTACA GGCTAGCTACAACGA TACATGGA 3020 5987 AUUUACUG UAGACCGU 1318 TTCTACAG GGCTAGCTACAACGA TACATGGA 3020 5987 ACUGUAGA C UAACCGAA 1321 ACTTAGAG GGCTAGCTACAACGA TACATGTT 3022 5987 ACUGAAGA A UGUACCGAA 1322 TTCTTCGG GGCTAGCTACAACGA TACTTACAA 3023 6003 UCUAAGUA A UGUACCC 1324 GGCATACA GGCTAACAACGA TAC	5928	AACAGUGG A UUGCUGCU	1308	AGCAGCAA GGCTAGCTACAACGA CCACTGTT	3010
5951 GGAGAAGA G UAUGCUUC 1311 GAAGCATA GGCTAGCTACAACGA TCTTCTC 3013 5953 AGAAGAU A UGCUUCCU 1312 AGGAAGCA GGCTAGCTACAACGA ATCTTCT 3014 5955 AAAGGUAU G CUUCCUUU 1313 AAAGGAAG GGCTAGCTACAACGA ATACTCTT 3015 5965 UUCUUUU A UCCAUGUA 1314 TACATGGA GGCTAGCTACAACGA ATACTCTT 3015 5969 UUUUAUCC A UGUAAUUUA 1315 AAATTACA GGCTAGCTACAACGA ATAGATTAA 3018 5971 UULUCCUU A UUUAACUG 1316 TTAAATTA GGCTAGCTACAACGA ATGATTAA 3019 5974 UUCAUGUA A UUUAACUG 1318 TTCTACAG GGCTAGCTACAACGA ATGATTAA 3019 5979 GUAAUUUA A CUGUAGAU 1319 AGGTTCAG GGCTAGCTACAACGA TAAATTAC 3020 5982 AUUUAACU G UAGACU 1320 AGCTCAGG GGCTAGCTACAACGA TCTACAGT 3021 5993 GAACCUGA G CUCUAAGU 1321 ACTTAGAG GGCTAGCTACAACGA TCTACAGT 3022 6000 AGCUCUAA G UAACCGAA 1322 TTCTTCGG GGCTAGCTACAACGA TCTACAGT 3024 6011 ACCGAAGA A UGUAUGCU 1325 GAGGCATA GGCTAGCTACAACGA TCTTCAGT 3024 6011 ACCGAAGA A UGUAUGCU 1325 GAGGCATA GGCTAGCTACAACGA ACATTCTTCGGT 3026	5931	AGUGGAUU G CUGCUUCU	1309	AGAAGCAG GGCTAGCTACAACGA AATCCACT	3011
5953 AGAAGAGU A UGCUUCCUU 1312 AGGAAGCA GGCTAGCTACAACGA ACTCTTCT 3014 5955 AAGAGUAU G CUUCCUUU 1313 AAAGGAAG GGCTAGCTACAACGA ATACTCTT 3015 5965 UUCCUUUU A UCCAUGUA 1314 TACATGGA GGCTAGCTACAACGA ATACTCTT 3016 5969 UUUUUAUCC A UGUAAUUU 1315 AAATTACA GGCTAGCTACAACGA AGAGAAAA 3016 5971 UUAUCCAU G UAAUUUAA 1316 TTAAATTA GGCTAGCTACAACGA ATGATAA 3017 5974 UCCAUGUA A UUUAACUG 1317 CAGTTACAA GGCTAGCTACAACGA TACATGAA 3020 5979 GUAAUUUA A CUGUAGAA 1318 TTCTACAG GGCTAGCTACAACGA TACATGAA 3020 5987 ACUGUAGA A CUGAGCU 1320 AGCTCAGG GGCTAGCTACAACGA TACATTACT 3021 5987 ACUGUAG UAACCGAA 1322 TTCGGTAGCTACAACGA TACATTACT 3024 6000 AGCUCUAG UACCGAA 1322 TTCTTGGG GGCTAGCTACAACGA TACATTACA 3024 6011 ACCGAAGA UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA TACTTCAGA 3025 6012 AAGAAUGU A UGCCUCUG 1326 CAGAGGCA GGCTAGCTACAACGA ACATTCTT <t< td=""><td>5934</td><td>GGAUUGCU G CUUCUUGG</td><td>1310</td><td>CCAAGAAG GGCTAGCTACAACGA AGCAATCC</td><td>3012</td></t<>	5934	GGAUUGCU G CUUCUUGG	1310	CCAAGAAG GGCTAGCTACAACGA AGCAATCC	3012
5955 AAGAGUAU G CUUCCUUU 1313 AAAGGAAG GGCTAGCTACAACGA ATACTCTT 3015 5965 UUCCUUUU A UCCAUGUA 1314 TACATGGA GGCTAGCTACAACGA AAAAGGAA 3016 5969 UUUUAUCC A UGUAAUUU 1315 AAATTACA GGCTAGCTACAACGA AAAAGGAA 3017 5971 UUCAUGUA A UUUAACUG 1317 CAGTTAAA GGCTAGCTACAACGA TACATGAA 3018 5974 UCCAUGUA A UUUAACUG 1317 CAGTTAAA GGCTAGCTACAACGA TACATGAA 3019 5979 GUAAUUUA A CUGUAGAA 1318 TTCTACAG GGCTAGCTACAACGA TACATGAA 3021 5982 AUUUAACU G UAGAACCU 1319 AGGTTCAGG GGCTAGCTACAACGA TACATTAA 3021 5983 GAACCUGA G CUCUAGU 1321 ACTTAGAG GGCTAGCTACAACGA TCTACACT 3022 5993 GAACCUGA G CUCUAGU 1321 ACTTAGAG GGCTAGCTACAACGA TCTCATACA 3023 6000 AGCUCUAA G UAUAGCC 1324 TCTGGTTA GGCTAGCTACAACGA TCTCTAGA 3025 6011 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA ACATTCTTCT 3026 6013 CCAAAGUU G UUCUUAUG 1326 CAGAGGCA GGCTAGCTACAACGA AACATCTTCTT </td <td>5951</td> <td>GGAGAAGA G UAUGCUUC</td> <td>1311</td> <td>GAAGCATA GGCTAGCTACAACGA TCTTCTCC</td> <td>3013</td>	5951	GGAGAAGA G UAUGCUUC	1311	GAAGCATA GGCTAGCTACAACGA TCTTCTCC	3013
1314 TACATGA GGCTACCTACAACGA ANAAGGAA 3016	5953	AGAAGAGU A UGCUUCCU	1312	AGGAAGCA GGCTAGCTACAACGA ACTCTTCT	3014
5969 UUUUAUCC A UGUAAUUU 1315 AAATTACA GGCTAGCTACAACGA GGATAAAA 3017 5971 UUAUCCAU G UAAUUUAA 1316 TTAAATTA GGCTAGCTACAACGA ATGGATAA 3018 5974 UCCAUGUA A UUUAACUG 1317 CAGTTAAA GGCTAGCAACGA TACATGGA 3019 5979 GUAAUUUA C UGUAGAA 1318 TTCTACAG GGCTAGCAACGA TAAATTAC 3020 5982 AUUUAACU G UAGAACCU 1319 AGGTTCTA GGCTACCAACGA TACATACA 3021 5987 ACUGUAGA 1320 AGCTCAGG GGCTAGCTACAACGA TCTACAGT 3022 6000 AGCUCUAA G UAACCGAA 1322 TTCGGTTA GGCTACCAACGA TCAGAGT 3023 6001 ACCGAAGA 1322 TTCTGGTA GGCTACCAACGA TCATGAGT 3024 6011 ACCGAAGA 1322 TTCTTCGG GGCTAGCTACAACGA TCTTCGGT 3026 6013 CGAAGAU G UAUGCCU 1324 GGCATACA GGCTACCAACGA TCTTCGGT 3027 6015 AAGAAGU A UGCCUCUG 1325 GAGGCATA GGCTACCAACGA ATTCTTCTT 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAG GGCTACCTAACAGA ATACATTC 3029 6029 </td <td>5955</td> <td>AAGAGUAU G CUUCCUUU</td> <td>1313</td> <td>AAAGGAAG GGCTAGCTACAACGA ATACTCTT</td> <td>3015</td>	5955	AAGAGUAU G CUUCCUUU	1313	AAAGGAAG GGCTAGCTACAACGA ATACTCTT	3015
5971 UUAUCCAU G UAAUUUA 1316 TTAAATTA GGCTAGCTACAACGA ATGGATAA 3018 5974 UCCAUGUA A UUUAACUG 1317 CAGTTAAA GGCTAGCTACAACGA TACATTGA 3019 5979 GUAAUUUA A CUGUAGAA 1318 TTCTACAG GGCTAGCTACAACGA TACATTACA 3020 5982 AUUUAACU G UAGAACCU 1319 AGGTCAGTACAACGA AGTTAAAT 3021 5983 ACUGUAGA C CUCUAAGU 1320 AGCTCAGG GGCTAGCTACAACGA TCTACAGT 3022 5993 GAACCUGA G CUCUAAGU 1321 ACTTAGAG GGCTACCAACGA TCAGCGT 3023 6000 AGCUCUAA G UAACCGAA 1322 TTCTGGTTA GGCTACCAACGA TCAGCACTATAGA 3024 6003 UCUAAGUA A CCGAAGAA 1322 TTCTTCGG GGCTAGCTACAACGA TCATCAGA 3025 6011 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA ATTCTTCG 3026 6013 CGAAGAUGU A UGCCUCU 1325 CAGAGGCA GGCTAGCTACAACGA ATTCTTCG 3027 6015 AAGAAUGU A UGUCUUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACATTC 3029 6023 AUGCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA AGAGCAT <td< td=""><td>5965</td><td>UUCCUUUU A UCCAUGUA</td><td>1314</td><td>TACATGGA GGCTAGCTACAACGA AAAAGGAA</td><td>3016</td></td<>	5965	UUCCUUUU A UCCAUGUA	1314	TACATGGA GGCTAGCTACAACGA AAAAGGAA	3016
5974 UCCAUGUA A UUUAACUG 1317 CAGTTAAA GGCTAGCTACAACGA TACATGGA 3019 5979 GUAAUUUA A CUGUAGAA 1318 TTCTACAG GGCTAGCTACAACGA TAAATTAC 3020 5982 AUUUUAACU G UAGAACCU 1319 AGGTTAGTACAACGA AGTTAAAT 3021 5987 ACUGUAGA CUGUAAGU 1320 AGCTCAGG GGCTAGCTACAACGA TCTACAGT 3022 5993 GAACCUGA G CUCUAAGU 1321 ACTTAGAG GGCTAGCTACAACGA TCACGTTC 3022 6000 AGCUCUAA G UAACCGAA 1322 TTCGGTTA GGCTACAACGA TCACTGAGCT 3024 6003 UCUAAGUA A CGAAGAA 1323 TTCTTGG GGCTAGCTACAACGA TCTTCGGT 3026 6011 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA ATCTTCGG 3026 6013 CGAAGAU G UAUGCCUC 1325 GAGGCATA GGCTAGCTACAACGA ATCATTCT 3026 6015 AAGAAUU A UGCCUCU 1326 CACAGGCA GGCTAGCTACAACGA ATCATTCT 3029 6023 AUGCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA ATCATTC 3029 6029 CUGUUCU A UGUGCAC 1329 GTGGCACA GCTAGCTACAACGA AT	5969	UUUUAUCC A UGUAAUUU	1315	AAATTACA GGCTAGCTACAACGA GGATAAAA	3017
5979 GUAAUUUA A CUGUAGAA 1318 TTCTACAG GGCTAGCTACAACGA TAAATTAC 3020 5982 AUUUAACU G UAGAACCU 1319 AGGTTCTA GGCTACAACGA AGTTAAAT 3021 5987 ACUGUAGA A CCUGAGCU 1320 AGCTCAGG GGCTAGCTACAACGA TCTACACGT 3022 5993 GAACCUGA G CUCUAAGU 1321 ACTTAGAG GGCTAGCTACAACGA TCTACAGT 3023 6000 AGCUCUAA G UAACCGAA 1322 TTCGGTTA GGCTACAACGA TTACTAGAG 3023 6003 UCUAAGGA A CGAAGAA 1323 TTCTTCGG GGCTAGCTACAACGA TCTTTGGT 3025 6011 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTACAACGA ATCTTTGG 3026 6013 CGAAGAU A UGCCUCU 1326 CAGAGCA GGCTAGCTACAACGA ATCTTT 3027 6015 AAGAAUGU A UGCCUCUU 1326 CAGAGCA GGCTAGCTACAACGA ATCATTCT 3029 6017 GAAUGUUU A UGUGCCA 1329 CATAAGAA GGCTAGCTACAACGA ATACATTC 3029 6023 AUGCUCUU A UGUGCAC 1329 GTGGCACA GGCTACAACGA ATAGAACA 3031 6031 GUUUAUGU G UCCACAU 1330 ATGTGGCA GGCTACAACGA ATAAGAA 3032 <td>5971</td> <td>UUAUCCAU G UAAUUUAA</td> <td>1316</td> <td>TTAAATTA GGCTAGCTACAACGA ATGGATAA</td> <td>3018</td>	5971	UUAUCCAU G UAAUUUAA	1316	TTAAATTA GGCTAGCTACAACGA ATGGATAA	3018
5982 AUUUAACU G UAGAACU 1319 AGGTTCTA GGCTAGCTACAACGA AGTTAAAT 3021 5987 ACUGUAGA A CCUGAGCU 1320 AGCTCAGG GGCTAGCTACAACGA TCTACAGT 3022 5993 GAACCUGA G CUCUAAGU 1321 ACTTAGAG GGCTAGCTACAACGA TCAGGTTC 3023 6000 AGCUCUAA G UAACCGAA 1322 TTCGGTTA GGCTAGCTACAACGA TCACGTACTACAGA 3024 6001 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA TCTTCGGT 3026 6013 CGAAGAU G UAUGCCUC 1325 GAGGCATA GGCTAGCTACAACGA ATCTTCTC 3027 6015 AAGAAUGU A UGCCUCU 1326 CAGAGGCA GGCTAGCTACAACGA ATCATTCT 3028 6017 GAAUGUUG G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA ATCATTCT 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA ATACATTC 3029 6031 GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAA 3031 6031 GUUCUAUG 1328 CATAAGAA GGCTAGCTACAACGA ATAAGAA 3032 6032 CUGUUCUU U GUCACAU 1330 ATGTGCA	5974	UCCAUGUA A UUUAACUG	1317	CAGTTAAA GGCTAGCTACAACGA TACATGGA	3019
5887 ACUGUAGA A CCUCAGCU 1320 AGCTCAGG GCTAGCTACAACGA TCTACAGT 3022 5993 GAACCUGA G CUCUAAGU 1321 ACTTAGAG GCTAGCTACAACGA TCAGGTTC 3023 6000 AGCUCUAA G UAACCGAA 1322 TTCGGTTA GGCTAGCTACAACGA TTAGAGCT 3024 6003 UCUAAGUA A CCGAAGAA 1323 TTCTTCGG GGCTAGCTACAACGA TACTTAGA 3025 6011 ACCGAAGA A UGAUGCC 1324 GGCATACA GGCTAGCTACAACGA ATCTTCG 3026 6013 CGAAGAA U GUAUGCCC 1325 GAGGCATA GGCTAGCTACAACGA ATCTTCTC 3027 6015 AAGAAUGUAU G CUCUGUU 1326 CACAGGGCA GCTAGCTACAACGA ATACATTC 3029 6017 GAAUGUAU G CUCUGUU 1327 AACAGAGG GCTAGCTACAACGA ATACATTC 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA ATACATTC 3029 6031 GUUCUUAU A UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA AGAACAG 3031 6032 UCUUAUGU G UCCACAUC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 3033 6033 UCUUAUGU G CCACAUC 1333 ACCAGGA GGCTAGCTACAACGA ACATAAGA <	5979	GUAAUUUA A CUGUAGAA	1318	TTCTACAG GGCTAGCTACAACGA TAAATTAC	3020
5993 GAACCUGA G CUCUAAGU 1321 ACTTAGAG GGCTAGCTACAACGA TCAGGTTC 3023 6000 AGCUCUAA G UAACCGAA 1322 TTCGGTTA GGCTAGCTACAACGA TAGAGCT 3024 6003 UCUAAGUA A CCGAAGAA 1323 TTCTTCGG GGCTAGCTACAACGA TACTTAGA 3025 6011 ACCGAAGAA UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA TCTTCGG 3026 6013 CGAAGAAU G UAUGCCUC 1325 GAGGCATA GGCTAGCTACAACGA ATTCTTCG 3027 6015 AAGAAUGU A UGCCUCU 1326 CAGAGGCA GGCTAGCTACAACGA ATTCTTCTG 3029 6017 GAAUGUAU G CCUCUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACATCT 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA AGAGACAGA 3031 6031 GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA AGAACAGA 3031 6033 UCUUAUGU G CCACAUC 1331 GGATGGG GGCTAGCTACAACGA ACATAAGA 3032 6034 UCUUAUGU G CCACAUC 1331 GATGGG GGCTAGCTACAACGA ACAGAA ACAGAACAGA	5982	AUUUAACU G UAGAACCU	1319	AGGTTCTA GGCTAGCTACAACGA AGTTAAAT	3021
6000 AGCUCUAA G UAACCGAA 1322 TTCGGTTA GGCTACCAACGA TTAGAGCT 3024 6003 UCUAAGUA A CCGAAGAA 1323 TTCTTCGG GGCTAGCTACAACGA TACTTAGA 3025 6011 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA TCTTCGGT 3026 6013 CGAAGAAU G UAUGCCUCUG 1325 GAGGCATA GGCTAGCTACAACGA ATTCTTT 3027 6015 AAGAAUGU A UGCCUCUG 1326 CAGAGGC GGCTAGCTACAACGA ATACTTT 3028 6017 GAAUGUAU G CUCUUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACTTCT 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA ATACATTC 3030 6029 CUGUUCUU A UGUGCAC 1329 GTGGCACA GGCTAGCTACAACGA AAGAACAG 3031 6031 GUUCUAUG G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ACATAAGA 3032 6038 UGUUCUAG G UCUUGU 1331 GGATGTG GGCTAGCTACAACGA ACATAAGA 3035 6044 ACAUCCUU G UUUAAAGA 1334 CCTTTAAA GGCTAGCTACAACGA ATTAAAC 3037 6052 GUUUAAAG G CUCUCUGU 1335 ACAGAGGA GGCTAGCTACAACGA ATGAAC	5987	ACUGUAGA A CCUGAGCU	1320	AGCTCAGG GGCTAGCTACAACGA TCTACAGT	3022
6003 UCUAAGUA A CCGAAGAA 1323 TTCTTCGG GGCTAGCTACAACGA TACTTAGA 3025 6011 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA TCTTCGGT 3026 6013 CGAAGAAU G UAUGCCUC 1325 GAGGCATA GGCTAGCAACGA ATCTTCG 3027 6015 AACAAGUA A UGCCUCUG 1326 CACAGGCA GGCTAGCTACAACGA ACATTCT 3028 6017 GAAUGUAU G CUCUUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACATTC 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA ATACATTC 3030 6029 CUGUUCUU A UGUGCCAC 1329 GTGGCACA GGCTAGCTACAACGA AGAGACAG 3031 6031 GUCUUAUG G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAAC 3032 6032 UCUUAUGU G UGCCACAU 1331 GGATGTGCACAACGA ACAACAACAACAAACAAACAAACAAACAAA	5993	GAACCUGA G CUCUAAGU	1321	ACTTAGAG GGCTAGCTACAACGA TCAGGTTC	3023
6011 ACCGAAGA A UGUAUGCC 1324 GGCATACA GGCTAGCTACAACGA TCTTCGGT 3026 6013 CGAAGAAU G UAUGCCUC 1325 GAGGCATA GGCTAGCTACAACGA ATTCTTCG 3027 6015 AAGAAUGU A UGCCUCUG 1326 CAGAGGCA GGCTAGCTACAACGA ACATTCTT 3028 6017 GAAUGUAU G CCUCUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACATTC 3029 6023 AUGCCUCU G UUCUJAUG 1328 CATAAGAA GGCTAGCTACAACGA AGAGACAG 3030 6029 CUGUUCUU A UGUGCCAC 1329 GTGGCACA GGCTAGCTACAACGA AGAACAG 3031 6031 GUCUJAUGU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ACATAAGA 3032 6033 UCUUAUGU G CCACAUCC 1331 GGATGTGTACAACGA ACATAAGA 3033 6036 UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTAGCTACAACGA GGCACATA 3034 6038 UGUGCCAC A UCCUUGU 1333 AACAAGGA GGCTAGCTACAACGA AGGATGT 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AGGATGT 3037 6052 GUUUAAAG 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGC 3038	6000	AGCUCUAA G UAACCGAA	1322	TTCGGTTA GGCTAGCTACAACGA TTAGAGCT	3024
6013 CGAAGAAU G UAUGCCUC 1325 GAGGCATA GGCTAGCTACAACGA ATTCTTCG 3027 6015 AAGAAUGU A UGCCUCUG 1326 CAGAGGCA GGCTAGCTACAACGA ACATTCTT 3028 6017 GAAUGUAU G CCUCUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACATTC 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA AGAGACAG 3030 6029 CUGUUCUU A UGUGCCAC 1329 GTGGCACA GGCTAGCTACAACGA AGAACAG 3031 6031 GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAA 3032 6033 UCUUAUGU G CCACAUCC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 3033 6036 UAUGGCCAC A CUCCUUGU 1332 CAAGGATG GGCTAGCTACAACGA GGCACATA 3034 6038 UGUGCCAC A UCCUUGU 1333 ACACAGGA GGCTAGCTACAACGA AGGATGT 3036 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AGGATGT 3037 6052 GUUUAAAG 1335 ACAGAGAG GGCTAGCTACAACGA AGAAGAC 3037 6059 GGCUCUU G UAUGAAGA 1336 TCTCTCA GGCTAGCTACAACGA ACAGAAGA	6003	UCUAAGUA A CCGAAGAA	1323	TTCTTCGG GGCTAGCTACAACGA TACTTAGA	3025
6015 AAGAAUGU A UGCCUCUG 1326 CAGAGGCA GGCTAGCTACAACGA ACATTCTT 3028 6017 GAAUGUAU G CCUCUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACATTC 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA AGAGGCAT 3030 6029 CUGUUCUU A UGUGCCAC 1329 GTGGCACA GGCTAGCTACAACGA AAGAACAG 3031 6031 GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAA 3032 6033 UCUUAUGU G CCACAUCC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 3033 6036 UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTACATAACGA ACATAAGA 3034 6038 UGUGCCAC A UCCUUGU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AGGATGT 3036 6052 GUUUAAAG CUUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA AGAGAGC 3037 6059 GGCUCUCU JUGAGAGA 1336 TCTTCATA GGCTAGCTACAACGA ACAGAAGG 3039 6061 CUUCUGU JUGAGAGA	6011	ACCGAAGA A UGUAUGCC	1324	GGCATACA GGCTAGCTACAACGA TCTTCGGT	3026
6017 GAAUGUAU G CCUCUGUU 1327 AACAGAGG GGCTAGCTACAACGA ATACATTC 3029 6023 AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA AGAGGCAT 3030 6029 CUGUUCUU A UGUGCCAC 1329 GTGGCACA GGCTAGCTACAACGA AGAACACG 3031 6031 GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAAC 3032 6033 UCUUAUGU G CCACAUCC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 3033 6036 UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTAGCTACAACGA ACATAAGA 3033 6036 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GGCACATA 3034 6038 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA AGGATGT 3036 6059 GGCUCUCU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGC 3037 6059 GGCUCUU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA ACAGAGAG 3039 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGCCCATCTC 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTACCAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA GACGGTCC 3043 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGTAGACG 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGATGAC 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGATGAC 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGATGAC 6086 OCACGUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA GTGATGAC 6086 OCACGUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA GTGATGAC 6086 OCACGUCA G CACAUUCC 1343 AGGGAATG GGCTAGCTACAACGA GTGATGAC 6086 OCACGUCA G CACAUUCC 1343 AGGGAATG GGCTAGCTACAACGA GTGATGAC 6086 OCACGUCA G CACAUCCC 1344 CATAGGAA GGCTAGCTACAACGA GTGATGAC 6086 OCACGUCA G GGCTAGCTACAACGA GTGATGAC 6086 OCACGUCA G GGCTAGCTACAACGA TGATGAC 6086 AUUCCCUA G UGAGCCUA 1344 CTAGGGAA GGCTAGCTACAACGA TGATGAC 6096 AUUCCCUA G UGA	6013	CGAAGAAU G UAUGCCUC	1325	GAGGCATA GGCTAGCTACAACGA ATTCTTCG	3027
AUGCCUCU G UUCUUAUG 1328 CATAAGAA GGCTAGCTACAACGA AGAGGCAT 6029 CUGUUCUU A UGUGCCAC 1329 GTGGCACA GGCTAGCTACAACGA AGAACAG 3031 6031 GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAAC 6032 UCUUAUGU G CCACAUCC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 6036 UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTAGCTACAACGA ACATAAGA 6036 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GGCACATA 6038 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA AAGGATGT 6059 GGCUCUCU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3037 6059 GGCUCUCU G UAUGAAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CTCTTCAT 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGCTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA GTCCCAT 3046 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTCTCAACGA 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTCTCAACGA 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTCTAGACG 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGATGACA 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGATGACA 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGATGACA 6086 AUCCCUA G UGAGCCUA 1340 CTAGGGAA GGCTAGCTACAACGA TGATGACA 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA TGATGACA 6086 AUCCCUA G UGAGCCUA 1341 TGTGCTGA GGCTAGCTACAACGA TGATGACA 6086 AUCCCUA G UGAGCCUA 1341 TGTGCTGA GGCTAGCTACAACGA TGATGACA 6086 AUCCCUA G UGAGCCUA 1341 CTAGGGAA GGCTAGCTACAACGA TGATGAACGA 6096 AUUCCCUA G UGAGCCUA 1346 CCAGTAGG GGCTAGCTACAACGA AGGCTCAC 6046 AUCCCUAG	6015	AAGAAUGU A UGCCUCUG	1326	CAGAGGCA GGCTAGCTACAACGA ACATTCTT	3028
6029 CUGUUCUU A UGUGCCAC 1329 GTGGCACA GGCTAGCTACAACGA AAGAACAG 3031 6031 GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAAC 3032 6033 UCUUAUGU G CCACAUCC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 3033 6036 UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTAGCTACAACGA GGCACATA 3034 6038 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAAGGA GGCTAGCTACAACGA AAGGATGT 3036 6059 GGCUCUU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GACGGTCCA 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACCG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGCTACTA 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TGATGAC 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTTAGG GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTTAGG GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTTAGG GGCTAGCTACAACGA TAGGGAAT 3047 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA TAGGGAAT 3047	6017	GAAUGUAU G CCUCUGUU	1327	AACAGAGG GGCTAGCTACAACGA ATACATTC	3029
GUUCUUAU G UGCCACAU 1330 ATGTGGCA GGCTAGCTACAACGA ATAAGAAC 3032 6033 UCUUAUGU G CCACAUCC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 3033 6036 UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTAGCTACAACGA GGCACATA 3034 6038 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTACAACGA AAGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAAGAG GGCTAGCTACAACGA AAGGATGT 3037 6059 GGCUCUU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA ACGAAGGC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACGAAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGCCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA GACGGTCC 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGTATGA 3046 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGGAATG GGCTAGCTACAACGA TGATGAC 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TGATGAT 3046 6040 GUGAGCCU A CUGGCUCC 1347 GGGGCTAG GGCTAGCTACAACGA TGATGAG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA TCACTAGG 3048	6023	AUGCCUCU G UUCUUAUG	1328	CATAAGAA GGCTAGCTACAACGA AGAGGCAT	3030
GO33 UCUUAUGU G CCACAUCC 1331 GGATGTGG GGCTAGCTACAACGA ACATAAGA 3033 6036 UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTAGCTACAACGA GGCACATA 3034 6038 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AAGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA AAGGATGT 3037 6059 GGCUCUC G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA ACAGAGAG 3039 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGCTCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TGATGAC 3047 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TAGGGAAT 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6029	CUGUUCUU A UGUGCCAC	1329	GTGGCACA GGCTAGCTACAACGA AAGAACAG	3031
UAUGUGCC A CAUCCUUG 1332 CAAGGATG GGCTAGCTACAACGA GGCACATA 3034 6038 UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AAGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA AAGGATGT 3037 6059 GGCUCUCU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA ACAGAGAG 3039 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA GACGGTCC 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GCTGATGA 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TGATGACG 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TAGGGAAT 3047 6100 GUGAGCCU A CUGGCUCC 1347 GGGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6031	GUUCUUAU G UGCCACAU	1330	ATGTGGCA GGCTAGCTACAACGA ATAAGAAC	3032
UGUGCCAC A UCCUUGUU 1333 AACAAGGA GGCTAGCTACAACGA GTGGCACA 3035 6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AAGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA CTTTAAAC 3037 6059 GGCUCUCU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA ACAGAGAG 3039 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA GACGGTCC 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GTGCTGAT 3046 6086 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA TGGGAAT 3047 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TAGGGAAT 3047 6104 GUGAGCCU A CUGGCUCC 1347 GGGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6033	UCUUAUGU G CCACAUCC	1331	GGATGTGG GGCTAGCTACAACGA ACATAAGA	3033
6044 ACAUCCUU G UUUAAAGG 1334 CCTTTAAA GGCTAGCTACAACGA AAGGATGT 3036 6052 GUUUAAAG G CUCUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA CTTTAAAC 3037 6059 GGCUCUCU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6036	UAUGUGCC A CAUCCUUG	1332	CAAGGATG GGCTAGCTACAACGA GGCACATA	3034
GUUUAAAG G CUCUCUGU 1335 ACAGAGAG GGCTAGCTACAACGA CTTTAAAC 3037 6059 GGCUCUCU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TAGGGAAT 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCACA	6038	UGUGCCAC A UCCUUGUU	1333	AACAAGGA GGCTAGCTACAACGA GTGGCACA	3035
GGCUCUCU G UAUGAAGA 1336 TCTTCATA GGCTAGCTACAACGA AGAGAGCC 3038 6061 CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CTCTTCAT 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049		ACAUCCUU G UUUAAAGG	1334		
CUCUCUGU A UGAAGAGA 1337 TCTCTTCA GGCTAGCTACAACGA ACAGAGAG 3039 6069 AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 6074 GAGAUGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6052	GUUUAAAG G CUCUCUGU	1335	ACAGAGAG GGCTAGCTACAACGA CTTTAAAC	3037
AUGAAGAG A UGGGACCG 1338 CGGTCCCA GGCTAGCTACAACGA CTCTTCAT 3040 G074 GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 G077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 G080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 G084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 G086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 G088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 G096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TGAGGAAT 3047 G100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 G104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6059	GGCUCUCU G UAUGAAGA	1336	TCTTCATA GGCTAGCTACAACGA AGAGAGCC	3038
GAGAUGGG A CCGUCAUC 1339 GATGACGG GGCTAGCTACAACGA CCCATCTC 3041 6077 AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6061	CUCUCUGU A UGAAGAGA	1337	TCTCTTCA GGCTAGCTACAACGA ACAGAGAG	3039
AUGGGACC G UCAUCAGC 1340 GCTGATGA GGCTAGCTACAACGA GGTCCCAT 3042 6080 GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6069	AUGAAGAG A UGGGACCG	1338	CGGTCCCA GGCTAGCTACAACGA CTCTTCAT	3040
GGACCGUC A UCAGCACA 1341 TGTGCTGA GGCTAGCTACAACGA GACGGTCC 3043 6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6074	GAGAUGGG A CCGUCAUC	1339	GATGACGG GGCTAGCTACAACGA CCCATCTC	3041
6084 CGUCAUCA G CACAUUCC 1342 GGAATGTG GGCTAGCTACAACGA TGATGACG 3044 6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6077	AUGGGACC G UCAUCAGC	1340	GCTGATGA GGCTAGCTACAACGA GGTCCCAT	3042
6086 UCAUCAGC A CAUUCCCU 1343 AGGGAATG GGCTAGCTACAACGA GCTGATGA 3045 6088 AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6080	GGACCGUC A UCAGCACA	1341	TGTGCTGA GGCTAGCTACAACGA GACGGTCC	3043
AUCAGCAC A UUCCCUAG 1344 CTAGGGAA GGCTAGCTACAACGA GTGCTGAT 3046 6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6084	CGUCAUCA G CACAUUCC	1342	GGAATGTG GGCTAGCTACAACGA TGATGACG	3044
6096 AUUCCCUA G UGAGCCUA 1345 TAGGCTCA GGCTAGCTACAACGA TAGGGAAT 3047 6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6086	UCAUCAGC A CAUUCCCU	1343	AGGGAATG GGCTAGCTACAACGA GCTGATGA	3045
6100 CCUAGUGA G CCUACUGG 1346 CCAGTAGG GGCTAGCTACAACGA TCACTAGG 3048 6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6088	AUCAGCAC A UUCCCUAG	1344	CTAGGGAA GGCTAGCTACAACGA GTGCTGAT	3046
6104 GUGAGCCU A CUGGCUCC 1347 GGAGCCAG GGCTAGCTACAACGA AGGCTCAC 3049	6096	AUUCCCUA G UGAGCCUA	1345	TAGGCTCA GGCTAGCTACAACGA TAGGGAAT	3047
	6100	CCUAGUGA G CCUACUGG	1346	CCAGTAGG GGCTAGCTACAACGA TCACTAGG	3048
6108 GCCITACIG G CITCCIGCC 1248 GCCAGGAG GCCTACCTACAACGA CACTACGA	6104	GUGAGCCU A CUGGCUCC	1347	GGAGCCAG GGCTAGCTACAACGA AGGCTCAC	3049
9109 GCCDACOR & COCCORGC 1340 GCCARRAY GGCTACCTACCACCACCACCACCACCACCACCACCACCACCA	6108	GCCUACUG G CUCCUGGC	1348	GCCAGGAG GGCTAGCTACAACGA CAGTAGGC	3050

6118 GCCUCCUG G CAGGGGCUUU 1560 AAAAGCG GGCTAGCTACAAGA CAGGAACC 3051 6127 CGGCUUUU G UGGAAGAC 1351 CACAAAAG GGCTAGCTACAACGA CGCTGCCA 3053 6127 CGGCUUUU G UGGAAGAC 1352 GTCTTCCA GGCTAGCTACAACGA CAGGACCA 3053 6138 GAAGACUC A CUAGCCAG 1354 CTGGCTAG GGCTAGCTACAACGA AAAAGCCG 3056 6138 GAAGACUC A CUAGCCAG 1354 CTGGCTAG GGCTAGCTACAACGA AAAAGCCG 3056 6139 GAAGACUC A CUAGCCAG 1355 CTGTCCC GGCTAGCTACAACGA AAAAGCCG 3056 6141 ACUCACUA G CCAGAGAA 1355 CTGTCCG GGCTAGCTACAACGA AAAGCCG 3056 6156 AGAGAGGA G UGGGACAG 1356 CTGTCCC GGCTAGCTACAACGA AAAGCCAC 3056 6156 AGAGAGGA G UGCGCCC 1357 GAGGACGA GCCACCCC 3058 6157 GAGGGACG UCCCUCCC 1358 GAGGAGGA GGCTAGCTACAACGA CCACCCC 3058 6157 UCCUCUCC A CCAAGAUC 1359 GAGGAGGA GGCTAGCTACAACGA CAGCACCAC 6158 AGALCUAA A UCCAAACA 1361 TGTTTGGA GGCTAGCTACAACGA CTGGTGTGG 6159 AAACCAA A CAAAAGCA 1362 TGCTTTTG GGCTAGCTACAACGA CTTGGTTGG 6151 AAACCAA A CAAAAGCA 1362 TGCTTTTG GGCTAGCTACAACGA CTTTGGTTG 6151 AAAACCAA A CAAAAGCA 1362 TGCTTTTG GGCTAGCTACAACGA TTTTGTTT 3064 6151 AAAACAAA G CAAGCUAG 1363 CTAGCCTG GGCTAGCTACAACGA TTTTGTTT 3065 6201 AAAAGCAA G CAAAAGCA 1362 TGCTTTTG GGCTAGCTACAACGA TTTTTTT 3066 6202 AAGAGAGG G CUAGAGCC 1364 GGCTCTAG GGCTAGCACACA CTTTTTTT 3066 6203 AAGACCUU G UUGUUCU 1367 AAACAAAGA GGCTAACAACA TTTTGTCT 3069 6204 AAGACCAC AUGUUCU 1367 AAACAAAGA GGCTAACAACA TTTTGCTT 3069 6205 AAGGACAA A UCUUUGUU 1367 AAACAAAGA GGCTAACCAACA TTTTGCCTC 3069 6206 CUUUACAC A UACGCAAA 1370 TGCTTCTG GGCTAACAACAA AAAGATTT 3069 6207 AAGGACAA A UCUUUGUU 1368 AAGAACTA GGCTACCAACACA TTTTGCCTC 3069 6208 CUUUACAC A UACGCAAA 1371 TGCTTCTG GGCTAACAACAA AAAGATTT 3069 6209 CUUUACAC A UACGCAAA 1371 TGCTTCTG GGCTAACACAA AAAGATTT 3069 6200 CUUUACAC A UACGCAAA 1371 TGCTTCTG GGCTAACACAA AAACAATAG 3071 6200 CUUUACAC A UACGCAAA 1371 TGCTTCTG GGCTAACACACA AAC					0.077
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6246 UCUUCUUU A CACAUACG 1370 CGTATGTG GGCTAGCTACAACGA AAAGAAGA 3072 6248 UUCUUUACA CAUACGCA 1371 TGCGTATG GGCTAGCTACAACGA GTAAAGAA 3073 6250 CUUUACACA UACGCAAA 1372 TTTGCGTA GGCTAGCTACAACGA GTAAAGAA 3073 6252 UUACACAU A CGCAAACC 1373 GGTTTGCG GGCTAGCTACAACGA ATGTGTAA 3075 6254 ACACAUAC G CAAACCA 1374 GTTGGTTG GGCTAGCTACAACGA ATGTGTAA 3075 6258 AUACGCAA A CCACCUGU 1375 ACAGGTGG GGCTAGCTACAACGA GTTTGTGT 3076 6258 AUACGCAA CCCUGUAC 1376 GTCACAGG GGCTAGCTACAACGA GTTTTGCT 3077 6261 CGCAAACC A CCUGUGAC 1376 GTCACAGG GGCTAGCTACAACGA GTTTTGCG 3078 6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCTACAACGA AGGTGGTT 3079 6266 CACCUGUGA CAGCUGGC 1378 GCCAGCTG GGCTAGCTACAACGA AGGTGGTT 3079 6267 CACCUGUG A CAGCUGGC 1378 GCCAGCTG GGCTAGCTACAACGA AGGTGGTG 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA CACAGGTG 3081 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCTACAACGA CACAGGTG 3081 6276 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCACCT 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCACCT 3082 6287 UUUUAUAAA UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA TACCACCT 3084 6292 UAAAUCAG GUAACUGGA 1384 TCACGTTA GGCTAGCTACAACGA TACCTACT 3086 6292 UAAAUCAG GUAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA TTATAAAA 3085 6292 UAAAUCAG GUAACUGC 1386 GAGTTTAA GGCTAGCTACAACGA TTCCTTCC 3088 6331 GAGGUUAA CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA CTCCTTCC 3088 6332 AAAAGAAGA CUCCAGUC 1386 GAGTTTAA GGCTAGCTACAACGA TACCTCCT 3099 6333 AGACCUCA GUCAAUUCU 1389 AGATTGA GGCTAGCTACAACGA TTACCTC 3089 6337 CUCAGUCA UCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3089 6337 CUCAGUCA UCAGAAA 1389 GACTAGAG GGCTAGCTACAACGA TGAGTTT 3091 6337 CUCAGUCA UCAGAAA 1389 GACTAGAG GGCTAGCTACAACGA TGAGTTT 3091 6337 CUCAGUCA UCAGAAA 1389 GACTAGAG GGCTAGCTACAACGA TGAGTAT 3091 6337 CUCAGUCA UCAGAAA 1389 GACTAGA GGCTAGCTACAACGA TGAGTAT 3091 6337 CUCAGUCA UCAGAAA 1399 GACTAGA GGCTAGCTACAACGA TGAGTAT 3091 6337 CUCAGUCA UCAGAAA 1399 GACTAGA GGCTAGCTACAACGA TATCTGAT 3092 6338 AGACCUCA GAAUAGC 1399 GTAGCTACAACGA TATCTGAT 3096 6371 CAAAUCAG A UAAGCACA 1399 GTAGCTA	6230	AAAUCUUU G UUGUUCCU	1368	AGGAACAA GGCTAGCTACAACGA AAAGATTT	3070
6248 UUCUUUAC A CAUACGCA 1371 TGCGTATG GGCTAGCTACAACGA GTAAAGAA 3073 6250 CUUUACAC A UACGCAAA 1372 TTTGCGTA GGCTAGCTACAACGA GTGTAAAG 3074 6252 UUACACAU A CGCAAACC 1373 GGTTGGG GGCTAGCTACAACGA ATGTGTAA 3075 6254 ACACAUAC G CAAACCAC 1374 GTGGTTGG GGCTAGCTACAACGA GTTTGTGT 3076 6258 AUACGCAA A CCACCUGU 1375 ACAGGTGG GGCTAGCTACAACGA GTTTGCGTAT 3077 6261 CGCAAACC A CCUGUGAC 1376 GTCACAGG GGCTAGCTACAACGA GTTTGCGTAT 3079 6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCTACAACGA AGGTGGTT 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA CACGGTGTC 3082 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCTACAACGA TGCCACGT 3082 6275 GACAGCUG G CAAUUUA 1380 TAAATTA GGCTAGCTACAACGA TGCAACGA 3082 6278 AGCUGACA A UUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCAACGA 3082 6283 GCAAUUUU A UAAACAG 1382 CTGATTTA GGCTAGCTACAACGA TACTATAA	6233	ncanagna e naccacan	1369	AAGAGGAA GGCTAGCTACAACGA AACAAAGA	3071
6250 CUUUACAC A UAGGCAAA 1372 TTTGCGTA GGCTAGCTACAACGA GTGTAAAG 3074 6252 UUACACAU A CGCAAACC 1373 GGTTTGCG GGCTAGCTACAACGA ATGTGTAA 3075 6254 ACACAUAC G CAAACCAC 1374 GTGGTTTG GGCTAGCTACAACGA GTATGTGT 3076 6258 AUACGCAA A CCACCUGU 1375 ACAGGTGG GGCTAGCTACAACGA GTTTGCG 3078 6261 CGCAAACC A CCUGUGAC 1376 GTCACAGG GGCTAGCTACAACGA AGGTGTTCGC 3078 6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCTACAACGA AGGTGGTT 3079 6266 CACCUGUG A CAGCUGC 1378 GCCAGCTG GGCTAGCTACAACGA AGGTGTC 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA TGCACGA 3081 6278 AGCUGGCA A UUUUAA 1380 TAAAATTG GGCTAGCTACAACGA CAGCTTTC 3082 6287 AGCAGUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA TACAACGA TACAACGA TACAACGA TACAACGA TACAACGA TACAACGA CAGATACAACGA CACAACGA CAGATACAACGA CACAACGA CACAACGA CACAACGA CACAACGA CACAACGA CACAACGA CACACAACGA CACAACGA CACACA	6246	UCUUCUUU A CACAUACG	1370	CGTATGTG GGCTAGCTACAACGA AAAGAAGA	3072
6252 UUACACAU A CGCAAACC 1373 GGTTTGCG GGCTAGCTACAACGA ATGTGTAA 3075 6254 ACACAUAC G CAAACCAC 1374 GTGGTTG GGCTAGCTACAACGA GTATGTGT 3076 6258 AUACGCAA A CCACCUGU 1375 ACAGGTGG GGCTAGCTACAACGA TTGCGTAT 3077 6261 CGCAAACC A CCUGUGAC 1376 GTCACAGG GGCTAGCTACAACGA GGTTTGCG 3078 6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCTACAACGA AGGTGGTT 3079 6268 CACCUGUG A CAGCUGGC 1378 GCCAGCTG GGCTAGCTACAACGA CACAGGTG 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA TGTCACAG 3081 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCTACAACGA TGTCACAG 3082 6276 AGCUGGCA A UUUUAUAA 1381 TTATTAAAA GGCTAGCTACAACGA TGCCAGCT 3083 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA TAATTAC 3085 6284 UUUUAUAA A UCAGGUA 1383 TTACCTGA GGCTAGCTACAACGA TAATTAC 3086 6295 AUCAGGUA A CUGGAAGG 1384 TCCAGTTA GGCTACCAACGA TACCTTCT 3088 6306 GGAAGGAG G UUAAACUC 1386 GAGTTACAACGA TTACACCA CTGATTT 3087 6327 AAAAGAAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3088 6327 AAAAGAAG A CUCAGUC 1388	6248	UUCUUUAC A CAUACGCA	1371	TGCGTATG GGCTAGCTACAACGA GTAAAGAA	3073
6254 ACACAUAC G CAAACCAC 1374 GTGGTTTG GGCTAGCTACAACGA GTATGTGT 3076 6258 AUACGCAA A CCACCUGU 1375 ACAGGTGG GGCTAGCTACAACGA TTGCGTAT 3077 6261 CGCAAACC A CCUGUGAC 1376 GTCACAGG GGCTAGCTACAACGA GGTTTGCG 3078 6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCTACAACGA AGGTGGT 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA CACAGGTG 3081 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCTACAACGA CAGCTGTC 3082 6275 GACAGCUG G CAAUUUUA 1381 TTATAAAA GGCTAGCTACAACGA CAGCTGTC 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCAGCT 3084 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTACAACGA TACTAAACGA TACTATAAAA 3085 6292 UAAAUCAG G UAACUCGA 1384 TCCAGTTA GGCTACAACGA TACTATAA 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTACAACGA TCCTTCC 3088 6327 AAAAGAAA CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACTTTT	6250	CUUUACAC A UACGCAAA	1372	TTTGCGTA GGCTAGCTACAACGA GTGTAAAG	3074
6258 AUACGCAA A CCACCUGU 1375 ACAGGTGG GGCTAGCAACGA TTGCGTAT 3077 6261 CGCAAACC A CCUGUGAC 1376 GTCACAGG GGCTAGCAACGA GGTTTGCG 3078 6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCACACGA AGGTGGTT 3079 6268 CACCUGUG A CAGCUGC 1378 GCCAGCTG GGCTAGCACACGA CACAGGTG 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA CAGCTGTC 3081 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCAACGA CAGCTGTC 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA CAGCTGTC 3082 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTACAACGA TAACAACTA 3084 6287 UUUUAUAA A UCAGGAA 1384 TCCAGTTA GGCTACAACGA TTATAAAA 3085 6292 UAAAUCAG G UAAACUC 1386 GAGTTTAA GGCTACAACGA TTACCTCATA 3087 6311 GAGGUAA A CUCAGAAA 1387 TTTCTGAG GGCTACCAACGA TTACCTCTTCT 3088 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA CTTCTTT 3091 <	6252	UUACACAU A CGCAAACC	1373	GGTTTGCG GGCTAGCTACAACGA ATGTGTAA	3075
6261 CGCAAACC A CCUGUGAC 1376 GTCACAGG GGCTAGCTACAACGA GGTTTGCG 3078 6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCTACAACGA AGGTGGTT 3079 6268 CACCUGUG A CAGCUGGC 1378 GCCAGCTG GGCTAGCTACAACGA CACAGGTG 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA TGTCACAG 3081 6275 GACAGCUG G CAAUJUUA 1380 TAAAATTG GGCTAGCTACAACGA TGCCAGGT 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCAGCT 3083 6283 GCAAUJUUA UAAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA TATAAAAA 3085 6292 UAAAUCAG UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA TATAAAAA 3085 6292 UAAAUCAG G UAACUGGA 1385 CCTTCCAG GGCTAGCTACAACGA TACTATAAA 3086 6295 AUCAGGUA A CUCAGAAA 1385 CCTTCCAG GGCTAGCTACAACGA TACCTCTTC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA CTCCTTCC 3088 6311 GAGGUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAG GGCTAGCTACAACGA TTACCTC 3089 6333 AGACCUCA G UCAAUJUCU 1389 AGAATTGA GGCTAGCTACAACGA TTCTTTT 3090 6333 AGACCUCA G UCAAUJUCU 1389 AGAATTGA GGCTAGCTACAACGA TGACTACA 6371 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTTAGA 6391 CAAUCAGA A UAAUAGCC 1391 GTAGAGAA GGCTAGCTACAACGA TGACTACA 6371 CAAUCAG A UACUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACATTAG 6371 CAAUCAG A UACUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACATTG 3093 6366 UUUUCCAA A UCUCUAC 1391 GTAGAGAA GGCTAGCTACAACGA TGACATTG 3093 6374 CAAUCAG A UAAUAAC 1392 TTACCTG GGCTAGCTACAACGA TGAATTG 3095 6375 AGAUAAUA GCCCAGCAA 1395 TTGCTGG GGCTAGCTACAACGA TGAATTG 3095 6376 AUCAGAUA A UAGCCCAG 1394 CTGGCCTA GGCTAGCTACAACGA TGAATTG 3095 6377 AGAUAAUA GCCCACCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA GCAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TATTATCT 3097 6389 AGCAAAUA GUGAUAACA 1399 TTACCATA GGCTAGCTACAACGA TATTATCT 3099 6389 AGCAAAUA GUGAUAACA 1399 ACTATTTG GGCTAGCTACAACGA TATTTGCT 3100 6390 AAAUAGUG A UAACAAAUU 1399 ATTTCTTA GGCTAGCTACAACGA TATTTTGCT 3100	6254	ACACAUAC G CAAACCAC	1374	GTGGTTTG GGCTAGCTACAACGA GTATGTGT	3076
6265 AACCACCU G UGACAGCU 1377 AGCTGTCA GGCTAGCTACAACGA AGGTGGTT 3079 6268 CACCUGUG A CAGCUGGC 1378 GCCAGCTG GGCTAGCTACAACGA CACAGGTG 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA TGTCACAG 3081 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCAACGA CAGCTGTC 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCAGCT 3083 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCAACGA AAAATTGC 3084 6287 UUUUAUAA A UCAGGUAA 1383 TTACCTGA GGCTAGCAACGA TTATAAAA 3085 6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA TTACCTC 3088 6311 GAGGUUAA A CUCAGAUA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3089 6327 AAAAGAAG A CUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA TGACTCT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGTCTAGA <td< td=""><td>6258</td><td>AUACGCAA A CCACCUGU</td><td>1375</td><td>ACAGGTGG GGCTAGCTACAACGA TTGCGTAT</td><td>3077</td></td<>	6258	AUACGCAA A CCACCUGU	1375	ACAGGTGG GGCTAGCTACAACGA TTGCGTAT	3077
6268 CACCUGUG A CAGCUGGC 1378 GCCAGCTG GGCTAGCTACAACGA CACAGGTG 3080 6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA TGTCACAG 3081 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCTACAACGA CAGCTGTC 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCAGCT 3083 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA AAAATTGC 3084 6287 UUUUAUAAA A UCAGGUAA 1383 TTACCTGA GGCTAGCTACAACGA TATAAAAA 3085 6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA TTATAAAA 3086 6295 AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA TCCTTCC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAG GGCTAGCTACAACGA TTACCTC 3089 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGACTGAG 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 6344 AAUUCUCU A CUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA TGACTGAG 6366 UUUUCCAA A UCAGAUAA 1392 TTACCTGA GGCTAGCTACAACGA TGAGAAAT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTACCTGA GGCTAGCTACAACGA TGAGAAAT 3093 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TGAGAAAT 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGATTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTTCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TATTTCT 3097 6382 AUAGCCCA G CAAAUAGU 1399 ACTATTTG GGCTAGCTACAACGA TATTTCT 3098 6389 AGCAAAUA G UGAUAACA 1399 ACTATTTA GGCTAGCTACAACGA TATTTTCT 3098	6261	CGCAAACC A CCUGUGAC	1376	GTCACAGG GGCTAGCTACAACGA GGTTTGCG	3078
6271 CUGUGACA G CUGGCAAU 1379 ATTGCCAG GGCTAGCTACAACGA TGTCACAG 3081 6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCTACAACGA CAGCTGTC 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCAGCT 3083 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA AAAATTGC 3084 6287 UUUUUAUAA A UCAGGUAA 1383 TTACCTGA GGCTAGCTACAACGA TTATAAAA 3085 6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA TTATAAAA 3085 6295 AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA TACCTGAT 3087 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA TTACCTC 3091 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGACTGAG 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAAG GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAAG GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAAG GGCTAGCTACAACGA TGACTGAG 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGGAAAA 3094 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCAACGA TATCTGAT 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATCTCAT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TATCTCGAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TATCTCGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATCTCGCG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATCTTCCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6265	AACCACCU G UGACAGCU	1377	AGCTGTCA GGCTAGCTACAACGA AGGTGGTT	3079
6275 GACAGCUG G CAAUUUUA 1380 TAAAATTG GGCTAGCTACAACGA CAGCTGTC 3082 6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCAGCT 3083 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA AAAATTGC 3084 6287 UUUUUAUAA A UCAGGUAA 1383 TTACCTGA GGCTAGCTACAACGA AAAATTGC 3084 6287 UUAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA TTATAAAA 3085 6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA CTGATTTA 3086 6295 AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA TCCCTTCC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA TTACCTC 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGTGTT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAAG GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCCCA A UCAGAUAA 1392 TTATCTGA GGCTAGCAACGA TGACTGAG 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TGAGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGGAAAA 3096 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCAACGA TATCTGAT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TATCTGAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TATCTGCT 3098 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATCTGCT 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATCTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA TATTTGCT 3100	6268	CACCUGUG A CAGCUGGC	1378	GCCAGCTG GGCTAGCTACAACGA CACAGGTG	3080
6278 AGCUGGCA A UUUUAUAA 1381 TTATAAAA GGCTAGCTACAACGA TGCCAGCT 3083 6283 GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA AAAATTGC 3084 6287 UUUUAUAA A UCAGGUAA 1383 TTACCTGA GGCTAGCTACAACGA TTATAAAA 3085 6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA CTGATTTA 3086 6295 AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA CTCCTTCC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA CTCCTTCC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA CTTCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAA GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGAAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTAG GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATCTGAT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6271	CUGUGACA G CUGGCAAU	1379	ATTGCCAG GGCTAGCTACAACGA TGTCACAG	3081
GCAAUUUU A UAAAUCAG 1382 CTGATTTA GGCTAGCTACAACGA AAAATTGC 3084 6287 UUUUAUAA A UCAGGUAA 1383 TTACCTGA GGCTAGCTACAACGA TTATAAAA 3085 6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA CTGATTTA 3086 6295 AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA CTCCTTCC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAG GGCTAGCTACAACGA CTTCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGAAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGAAAAA 3094 6374 AUCAGAUA A UAGCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA TATTTTCT 3101	6275	GACAGCUG G CAAUUUUA	1380	TAAAATTG GGCTAGCTACAACGA CAGCTGTC	3082
UUUUAUAA A UCAGGUAA 1383 TTACCTGA GGCTAGCTACAACGA TTATAAAA 3085 6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA CTGATTTA 3086 6295 AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA TACCTGAT 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTAACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA TTCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TATCTGAT 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATCTGAT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGCTGGG 3099 6386 CCCAGCAA UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6278	AGCUGGCA A UUUUAUAA	1381	TTATAAAA GGCTAGCTACAACGA TGCCAGCT	3083
6292 UAAAUCAG G UAACUGGA 1384 TCCAGTTA GGCTAGCTACAACGA CTGATTTA 3086 6295 AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA CTCCTTCC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTAACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA CTCCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGTGCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA TATCTGAT 3096 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATCTGAT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6283	GCAAUUUU A UAAAUCAG	1382	CTGATTTA GGCTAGCTACAACGA AAAATTGC	3084
AUCAGGUA A CUGGAAGG 1385 CCTTCCAG GGCTAGCTACAACGA TACCTGAT 3087 6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA CTCCTTCC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTAACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA CTTCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100	6287	UUUUAUAA A UCAGGUAA	1383	TTACCTGA GGCTAGCTACAACGA TTATAAAA	3085
6306 GGAAGGAG G UUAAACUC 1386 GAGTTTAA GGCTAGCTACAACGA CTCCTTCC 3088 6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTAACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA CTTCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100	6292	UAAAUCAG G UAACUGGA	1384	TCCAGTTA GGCTAGCTACAACGA CTGATTTA	3086
6311 GAGGUUAA A CUCAGAAA 1387 TTTCTGAG GGCTAGCTACAACGA TTAACCTC 3089 6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA CTTCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TATTTGCT 3100 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100	6295	AUCAGGUA A CUGGAAGG	1385	CCTTCCAG GGCTAGCTACAACGA TACCTGAT	3087
6327 AAAAGAAG A CCUCAGUC 1388 GACTGAGG GGCTAGCTACAACGA CTTCTTTT 3090 6333 AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100	6306	GGAAGGAG G UUAAACUC	1386	GAGTTTAA GGCTAGCTACAACGA CTCCTTCC	3088
AGACCUCA G UCAAUUCU 1389 AGAATTGA GGCTAGCTACAACGA TGAGGTCT 3091 6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100	6311	GAGGUUAA A CUCAGAAA	1387	TTTCTGAG GGCTAGCTACAACGA TTAACCTC	3089
6337 CUCAGUCA A UUCUCUAC 1390 GTAGAGAA GGCTAGCTACAACGA TGACTGAG 3092 6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6327	AAAAGAAG A CCUCAGUC	1388	GACTGAGG GGCTAGCTACAACGA CTTCTTTT	3090
6344 AAUUCUCU A CUUUUUUU 1391 AAAAAAAG GGCTAGCTACAACGA AGAGAATT 3093 6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6333		1389	AGAATTGA GGCTAGCTACAACGA TGAGGTCT	3091
6366 UUUUCCAA A UCAGAUAA 1392 TTATCTGA GGCTAGCTACAACGA TTGGAAAA 3094 6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6337	CUCAGUCA A UUCUCUAC	1390	GTAGAGAA GGCTAGCTACAACGA TGACTGAG	3092
6371 CAAAUCAG A UAAUAGCC 1393 GGCTATTA GGCTAGCTACAACGA CTGATTTG 3095 6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6344	AAUUCUCU A CUUUUUUU	1391	AAAAAAG GGCTAGCTACAACGA AGAGAATT	3093
6374 AUCAGAUA A UAGCCCAG 1394 CTGGGCTA GGCTAGCTACAACGA TATCTGAT 3096 6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6366	UUUUCCAA A UCAGAUAA	1392	TTATCTGA GGCTAGCTACAACGA TTGGAAAA	3094
6377 AGAUAAUA G CCCAGCAA 1395 TTGCTGGG GGCTAGCTACAACGA TATTATCT 3097 6382 AUAGCCCA G CAAAUAGU 1396 ACTATTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6371	CAAAUCAG A UAAUAGCC	1393	GGCTATTA GGCTAGCTACAACGA CTGATTTG	3095
6382 AUAGCCCA G CAAAUAGU 1396 ACTATTTG GGCTAGCTACAACGA TGGGCTAT 3098 6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6374	AUCAGAUA A UAGCCCAG	1394	CTGGGCTA GGCTAGCTACAACGA TATCTGAT	3096
6386 CCCAGCAA A UAGUGAUA 1397 TATCACTA GGCTAGCTACAACGA TTGCTGGG 3099 6389 AGCAAAUA G UGAUAACA 1398 TGTTATCA GGCTAGCTACAACGA TATTTGCT 3100 6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6377	AGAUAAUA G CCCAGCAA	1395	TTGCTGGG GGCTAGCTACAACGA TATTATCT	3097
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6392 AAAUAGUG A UAACAAAU 1399 ATTTGTTA GGCTAGCTACAACGA CACTATTT 3101	6386	CCCAGCAA A UAGUGAUA	1397	TATCACTA GGCTAGCTACAACGA TTGCTGGG	3099
	6389	AGCAAAUA G UGAUAACA	1398	TGTTATCA GGCTAGCTACAACGA TATTTGCT	3100
6395 UAGUGAUA A CAAAUAAA 1400 TTTATTTG GGCTAGCTACAACGA TATCACTA 3102	6392	AAAUAGUG A UAACAAAU	1399	ATTTGTTA GGCTAGCTACAACGA CACTATTT	3101
	6395	UAGUGAUA A CAAAUAAA	1400	TTTATTTG GGCTAGCTACAACGA TATCACTA	3102

6399 GNIAACA A UARARCCU 1401 AGGTTHITA GGCTRACTACAAGA TITITATTO 3104 6404 CARAINARA A COUURGUU 1402 AGGTTAGG GCTRAGGTACAACGA TITITATTO 3104 6410 AAACCUUA G CIGUUCAU 1402 AGGTTAGG GCTRAGGTACAACGA TAAGGTTT 3105 64117 AGCUGUUC A UGUUCAUU 1404 GACATGAA GGCTRAGGTACAACGA GACAGACA 3107 6419 CUGUUCAU G UCUUCAUU 1405 TCAAGACA GGCTRAGCTACAACGA GACAGCAT 3107 6419 CUGUUCAU G UCUUCAUU 1407 TATTAGAA GGCTRAGCTACAACGA ATGAACCA 3108 6428 AUGUCUUCA UUCAAUU 1407 TATTAGAA GGCTRAGCTACAACGA CAAGACAT 3109 6431 UGAUUUCA A UAAUUAUU 1409 AATAAAAA GGCTRAGCTACAACGA CAAGACAT 3109 6432 UUUCAAUA A UUAAUUCU 1409 AGAATTAA GGCTRAGCTACAACGA TATTAGAA 3110 6433 AUUACUUA A UCUUAAUA 1410 ATTAAGAA GGCTRAGCTACAACGA TATTAGAA 3111 6448 UUCUAAUC A UUAAGACA 1411 CTTAATGA GGCTRAGCTACAACGA TAAGAACT 3113 6448 UUCUAAUC A UUAAGACA 1412 TCCTATA GGCTRAGCTACAACGA TAAGAACT 3113 6456 AUUAAGACA UUAAGACA 1412 TCCTATA GGCTRAGCTACAACGA TAAGAACT 3113 6456 AUUAAGACA UUAAGACA 1412 TCCTATA GGCTRAGCTACAACGA TAAGAACT 3113 6456 AUUAAGACA UUAAGACA 1412 TCCTATA GGCTRAGCTACAACGA CATTAGAA 3115 6456 AUUAAGACA UUAAGACA 1412 TCCTATA GGCTRAGCTACAACGA CATTAGAA 3115 6456 AUUAAGACA AUCUCUUU 1417 AAAGGGCTAGCAACGA TATTATT 3116 6466 CAUAAUAA A UACUCCUU 1417 AAAGGGCT GCTRACACACA ATTAGTT 3116 6466 UAAUAAAAU A CUCCUUU 1417 AAAGGGCT GCTRACACACA ATTAGTT 3119 6467 AGAGAAAA C CCAUAGAA 1418 TGTTATTA GGCTRAGCTACAACGA TTTTATTA 3119 6468 AAAGCAAA C CCAUAGAA 1419 TCTAATGG GGCTRACCAACGA TTTTATTA 3119 6479 GCAAACCA UUACAGAU 1410 AATTATATA GGCTRACCAACGA TTTTATTA 3119 6570 AAAGCAAA C CCAUAGA 1419 TCTAATGG GGCTRACCAACGA TTTTATTA 3120 6571 CCAUAGA UUACCAC 1420 TCTAATCA GGCTAGCTACAACGA TTTTATTA 3120 6572 AAACCAA A CCAUAGAG 1420 TCTAATCA GGCTAGCTACAACGA TTTTATTA 3120 6572 GUUACUCA G CUCCUCCA 1420 TCTAATCA GGCTAGCTACAACGA TTTTATTA 3120 6572 GUUACUCA G CUCCUCCA 1420 TCTAATCA GGCTAGCTACAACGA TTTTATTA 3121 6573 UUUGAGAU C UUACCAGUC 1420 TCTAATCA GGCTAGCTACAACGA TCTAATCA 3124 6572 GUUACUCA G CUCCUCCA 1421 TGTATCA GGCTAGCTACAACGA TCAATCAT 3125 6573 UUUGAGCA UACAGGGC 1426 GCTAAGAGA GGCTAACAACA ACACATT 3136 6573 UUAG				The second secon	2102
6410 ARACCUUA G CUGUUCAU 1403 ATGRACAG GGCTAGCTACAAGGA TAAGGTTT 3105 6413 CCUUNACCU G UUCAUGUC 1404 ORCHTGAR GGCTAGCTACAAGGA AGCTAAGG 13107 6419 CUGUUCAU G UCUUCAUU 1405 TCARGACA GGCTAGCTACAAGGA AGCTAAGG 13107 6419 CUGUUCAU G UCUUCAUU 1406 AATCAAGA GGCTAGCTACAAGGA AGCAGCT 13107 6411 UGAUUCA G UUCAAUA 1407 TATTGANA GGCTAGCTACAAGGA ATGACAAG 13108 6425 AUGUCUG A UUUCAAUA 1408 ATTAATTA GGCTAGCTACAAGGA TAGACAA 1310 AGAUCUCA A UAAUUAAU 1409 AGAATTAA GGCTAGCTACAAGGA TAGACAA 1311 UGAUUCA A UAAUUAAU 1409 AGAATTAA GGCTAGCTACAAGGA TATTGAAA 1311 AGAUCUUA A UCAUUAAG 1411 CTTAATGA GGCTAGCTACAAGGA TATTGAAA 1311 AGAUCUUA A UCAUUAAG 1411 CTTAATGA GGCTAGCTACAAGGA TATTGAAA 1311 AGAUCUUA A UCAUUAAG 1411 CTTAATGA GGCTAGCTACAAGGA TATTGAAA 1311 AGAUCUUA A UCAUAAGAGA 1412 TCTCTTAA GGCTAGCTACAAGGA TAAGAATT 1313 AGCAGCAUA A UAAAGAAA 1413 TATTATTAG GGCTAGCTACAAGGA GACTTAGTA 1414 ATTAATTA GGCTAGCTACAAGGA GACTTAGTA 1416 AGGACAUA 1417 AGTATTATA GGCTAGCTACAAGGA GACTTATTAT 1416 AGGACAUA 1417 AAAGAGAA CCAUUAGA 1418 AGTATTTA GGCTAGCTACAAGGA GACTTATTAT 1418 AGGACACA 1418 AGGACACA 1418 AGGACACA 1419 AAAGAGAA 1419 AAAGAGAA 1419 AAAGAGAA 1419 AAAGAGAA 1410 AAAGAGAAA 1410 AAAGAGAA 1410 AAAGAGAA 1410 AAAGAGAA 1410 AAAGAGAAA	6399	GAUAACAA A UAAAACCU	1401		3103
6413 CCUUAGCU G UUCNIGUC 1405 TCARGACA GGCTAGCTACACGA AGCTAAGG 3106 6417 AGCUGUUCA UUCUUGAN 1405 TCARGACA GGCTAGCTACAACGA AACAGCT 3107 6419 CUGUUCAN UUCUUGANU 1406 AATCAAGA GGCTAGCTACAACGA ATCAACAG 3108 6425 ANGUCUUG A UUNCAAUA 1407 TATTGAAA GGCTAGCTACAACGA ATCAACAG 3109 6426 UUUCAAUA A UUANUAAU 1408 ATTAATTA GGCTAGCTACAACGA TATAACAG 3110 6434 UUUCAAUA A UUANUAAU 1409 ACAATTAA GGCTAGCTACAACGA TATATGAAA 3111 6438 AAUAAUUA A UUAUUAAU 1410 ATTAAGAA GGCTAGCTACAACGA TATTGAAA 3111 6439 AAUAAUUA A UUAUUAAU 1410 ATTAAGAA GGCTAGCTACAACGA TATTATAT 3112 6445 AAUUCUUA A UCAUUAAG 1411 CTTAATGAA GGCTAGCTACAACGA TATATTAT 3112 6446 UCUUAAUC A UUANGAGAA 1412 TCTCTTAA GGCTAGCTACAACGA TATAGAA 3114 6457 AAUAAGAGA A CUAUAAGA 1412 TCTCTTAA GGCTAGCTACAACGA CTTTAAGA 3114 6458 AUAAGAGACA TUAAGAGAA 1412 TCTCTTAA GGCTAGCTACAACGA CTCTTAAT 3115 6460 UAUAAGAAA A UAAAUACU 1415 AGTATTTA GGCTAGCTACAACGA GGTCTCTT 3116 6461 AUAAAAAU A UUCCUUUU 1416 AAGGAGTA GGCTAGCTACAACGA TATAGTAT 3116 6462 AGACCAUA A UAAAUACU 1415 AGTATTTA GGCTAGCTACAACGA TATAGTCT 3116 6468 UAUAAAAUA CUCCUUUU 1416 AAGGAGTA GGCTAGCTACAACGA TTTATTAT 3119 6468 UAUAAAAUA CUCCUUUU 1417 AAAAGAGAG GGCTAGCTACAACGA TTTATTAT 3119 6469 AAGGAAAA C ACAUUAGA 1418 TGGTTTTTA GGCTAGCTACAACGA TTTTATTA 3119 6479 AAGGAAAA WAAUACUA 1420 AATTCTAA GGCTAGCTACAACGA TTTTATTA 3119 6489 CAAAACCA 1418 TGGTTTTTA GGCTAGCTACAACGA TTTTATTA 3119 6591 CCCAUUAGA WUUGAGAAU 1420 AATTCTAA GGCTAGCTACAACGA TTTTCCTT 3120 6592 UCCGCUUCA 1421 AGTAACAA GGCTAGCTACAACGA TTTTCCTT 3120 6591 CCCUUCAA CUCAGGUU 1421 AGTAACAA GGCTAGCTACAACGA TTTTCCTT 3120 6592 WUGAGAUU G WACCAACG 1422 CTGAGTAA GGCTAGCTACAACGA TTTTCCTT 3125 6512 GUUCAUCA G CUCCUUCA 1423 GAGCTAGA GGCTAGCTACAACGA TTTCCTT 3126 6522 WCCUUCAA CUCAGGUU 1421 AGTAACAA GGCTAGCTACAACGA TTTCCTT 3126 6523 GUUCAUCA G CUCCUUCA 1424 TGAAGGAG GGCTAGCTACAACGA TTTCCTT 3126 6524 WUACCAA G CUCCUUCA 1426 GCTAGCTACAACGA TTTCATAGA 3126 6535 GUUCAUCA G UUCAGGUU 1426 AGCTAGCTACAACGA TTTGATCA 3126 6536 WUACCAAC G UUCAGUUCA 1426 GCTACCAA GGCTAGCTACAACGA TTTGATCA 3126 6537 WUUGUAGC A WACCAG	6404	CAAAUAAA A CCUUAGCU			
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6419 CUGUUCAU G UCUUGAUU 1406 AATCAAGA GGCTAGCTACAACGA ATGACAC 3108 6422 AUGUCUUG A UUUCAAUU 1407 TATTGAAA GGCTAGCTACAACGA CAAGACAT 3109 64341 UUGAUUCAA UUAAUUAAU 1408 ATTAAATTA GGCTAGCTACAACGA CAAGACAT 3109 64344 UUUCAAUA A UUAUUAAU 1409 AGAATTAA GGCTAGCTACAACGA TAATGAAA 3111 6438 AAUAAUUA A UUCAUUAAU 1410 ATTAAGAA GGCTAGCTACAACGA TAATGAAA 3111 6448 AAUACUUA A UUCAUUAAU 1410 ATTAAGAA GGCTAGCTACAACGA TAATGAAT 3113 6449 UCUUAAUC A UUAAUAAGA 1411 CTTAATCA GGCTAGCTACAACGA TAAGAATT 3113 6446 AUUCUUAA UCAUUAAG 1411 CTTAATCA GGCTAGCTACAACGA TAAGAATT 3113 6456 AUUAAGAG A CCAUAAUA 1413 TATTATGA GGCTAGCTACAACGA CTTAAGA 3114 6456 AUUAAGAG A CAUAAUAA 1413 TATTATGA GGCTAGCTACAACGA CTCTTAAA 3115 6457 AAGAGACCA UAAUAAAAU 1414 ATTTATTA GGCTAGCTACAACGA CTCTTAAA 3116 6458 AAGACCAUA AUAAUAAUCU 1415 AGTATTTA GGCTAGCTACAACGA CTCTTAAT 3116 6458 UAAUAAAAU A CUCCUUUU 1417 AAAGGGTA GGCTAGCTACAACGA CTTATTATT 3118 6468 UAAUAAAAU A CUCCUUUU 1417 AAAGGGTA GGCTAGCTACAACGA TATTATTA 3118 6468 UAAUAAAAU A CUCCUUUU 1417 AAAGGGTA GGCTAGCTACAACGA TATTATTA 3119 6492 AAAGCCAA CAUUAGAAU 1420 AATTCTAA GGCTAGCTACAACGA TTTTTTTA 3119 6495 GCAAAACC A UUAGAAUU 1420 AATTCTAA GGCTAGCTACAACGA TTTTCTCT 3120 6591 CCCAUUAGAA U UUACUCCG 1422 CTGAATGA GGCTAGCTACAACGA TTTTCTCT 3121 6592 UCUAGAAUG UUACUCGA 1422 CTGAATGA GGCTAGCTACAACGA TTTTCTCT 3121 6501 CCCAUUAGAA U UUACUCCG 1422 CTGAATGA GGCTAGCTACAACGA ATTCTATT 3121 6502 UCUCCAA A CUCAGGUC 1423 GACCTGAG GGCTAGCTACAACGA ATTCTATT 3126 6507 GAAUUGUU A CUCAGCUC 1423 GACCTGAG GGCTAGCTACAACGA ATTCTATT 3126 6512 UCUCUCAA A CUCAGGUC 1424 TGAAGGA GGCTAGCTACAACGA ATTCTATA 3126 6522 UCCUCUCAA A CUCAGGUC 1425 CACCAGA GGCTAGCTACAACGA TTGAGTAC 3126 6522 UCCUCUCAA A CUCAGGUC 1426 GCCACCAA GGCTAGCTACAACGA TTGAGTAC 3126 6531 GUUACUCCA G UUACUCAG 1426 CACCAGA GGCTAGCTACAACGA TTGAGTAC 3126 6532 UCCUCUCAA A CUCAGGUC 1426 GCCACCAG GGCTAGCTACAACGA TTGAGACA 3127 6528 AAACCCAG GUUACUAG 1427 CTCAGTAT GGCTAGCTACAACGA TTGAGACA 3127 6533 GGUUGUU G UAGCAGAG 1426 CTCACAA GGCTAGCTACAACGA TTGAGACA 3133 6534 UUAGGAUC A UACAUGAG 1428 CTCATATA G	6413				
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6445 AAUUCUUR A UCAUUANG 1411 CTTAATGA GGCTAGCTACAACGA TAAGAATT 3113 6448 UCUUANUC A UUANGAGA 1412 TCTCTTAA GGCTAGCAACGA CATTAAGA 3114 6456 AUUANGAGA C CCAUNAU 1413 TATTATGA GGCTAGCAACAGA CATTATAT 3115 6459 AAGAGCCA UAAUAAAU 1414 ATTTATTA GGCTAGCTACAACGA CATTATAT 3116 6462 CACAAUAA UAAUACU 1415 AAGAGCACAA 1416 AAGAGCACAA 1417 AAAGAGACAAACGA 1416 AAGAGAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	6434	UUUCAAUA A UUAAUUCU	1409		
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6487 AGAGAAAA G CAAAACCA 1418 TGGTTTTG GGCTAGCTACAACGA TTTTCTCT 3120 6492 AAAGCAAA A CCAUUAGA 1419 TCTAATGG GGCTAGCTACAACGA TTTGCTTT 3121 6495 GCAAAACC A UUAGAAUU 1420 AATTCTAA GGCTAGCTACAACGA TTTGCTTTG 3122 6501 CCAUUAGA A UUGUUACU 1421 AGTAACAA GGCTAGCTACAACGA GGTTTTGC 3122 6504 UUAGAAUU G UUACCAG 1422 CTGAGTAA GGCTAGCTACAACGA ATTCTAA 3124 6507 GAAUUGUU A CUCAGCUC 1423 GAGCTAGA GGCTAGCTACAACGA AATTCTAA 3124 6507 GAAUUGUU A CUCAGCUC 1423 GAGCTGAG GGCTAGCTACAACGA AACAATTC 3125 6512 GUUACUCA G CUCCUUCA 1424 TGAAGGAG GGCTAGCTACAACGA AACAATTC 3126 6522 UCCUUCAA A CUCAGGUU 1425 AACCTGAG GGCTAGCTACAACGA TGATAACG 3127 6528 AAACUCAG G UUUGUAGC 1426 GCTACAAAA GGCTAGCTACAACGA TGATAACG 3127 6528 AAACUCAG G UUUGUAGC 1427 GTATGCTA GGCTAGCTACAACGA TGATACAG 3127 6532 UCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA TGATACAG 3126 6535 GGUUUGUA G CAUACAUG 1428 GTATGCTA GGCTAGCTACAACGA TACAAACC 1306 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA TACAAACC 3130 6538 UGUAGGAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATACAAACC 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA ATGCTACA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA GCTACAAA 3131 6544 AUACACUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6549 AUGAGUCC A UCAGUCCA 1433 CTGATGGA GGCTAGCTACAACGA GGATGCTAC 3135 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGATGGAT 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA GGATGGAT 3137 6558 GUCCAAACA A UGAGUCCA 1437 TGAACGA GGCTAGCTACAACGA GGATGGAT 3136 6559 AUGAGUUA G UUCAUCU 1437 AGATGGA GGCTAGCTACAACGA TCATGTACA 3137 6560 AAAGAAAA A UGGUUCCA 1438 ACTCCAGA GGCTAGCTACAACGA TCTTTTGAC 1336 6573 AUGGUUCA A UUAGAAAA 1435 TTCTTTGA GGCTAGCTACAACGA TCTTTTGAC 1336 6561 GAGCUUUAAU G UAGAAAGA 1441 TTCTTTTCA GGCTAGCTACAACGA TTCTTTTAA 3137 6562 GUCAAACA A UGAGAACA 1444 TTCTTTTTAA GGCTAGCTACAACGA TTCTTTTAA 3140 6660 AAAGAAAA A UGAAAGAA 1440 CTTTTTAA GGCTAGCTACAACGA TTCTTTT 3144 6660 AAAGGAAG A UUGUAAAA 1441 TTCTTTCTA GGCTAGCTACAACGA TTCTTTT 3144 6660 AAAGAAGA A UGAAAGA 1441 TCTTTT	6466	CAUAAUAA A UACUCCUU	1416	AAGGAGTA GGCTAGCTACAACGA TTATTATG	3118
6492 AAAGCAAA A CCAUUAGA 1419 TCTAATGG GGCTAGCTACAACGA TTTGCTTT 3121 6495 GCAAAACC A UUAGAAUU 1420 AATTCTAA GGCTAGCTACAACGA GGTTTGC 3122 6501 CCAUUAGA A UUGUUACU 1421 AGTAACAA GGCTAGCTACAACGA GTTTTATGG 3122 6504 UUAGAAUU G UUACUCAG 1422 CTGAGTAA GGCTAGCTACAACGA ATTCTAA 3124 6507 GAAUUGUU A CUCAGCUC 1423 GAGCTAGC GGCTAGCTACAACGA AATTCTAA 3124 6512 GUUACUCA G CUCCUUCA 1424 TGAAGGAG GGCTAGCTACAACGA AACAATTC 6512 GUUACUCA A CUCAGGUU 1425 AACCTCAG GGCTAGCTACAACGA TGAAACTC 6522 UCCUUCAA A CUCAGGUU 1426 AACCTCAG GGCTAGCTACAACGA TGAAGAAC 6522 UCCUUCAA A CUCAGGUU 1427 GAACGAG GGCTAGCTACAACGA TGAAGAAC 6528 AAACUCAG G UUUGUAGC 1428 GCTACAAA GGCTAGCTACAACGA TTGAAGGA 6529 UCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA TTGAAGGA 6537 UUUGUAGC A UACAUGAG 1428 CATGTATG GGCTAGCTACAACGA TACAAACC 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA TACAAACC 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACA 6539 UGUAGCAU A CAUGAGUC 1431 TGGACTCA GGCTAGCTACAACGA ATGCTACA 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA GTATGCTAC 6543 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA GTATGCTAC 6544 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA GTATGCTAC 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GTATGCTA 1133 6545 AUCCAUCA G UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GGACTCAT 13136 6553 GUCCAUCA G UCCAUCACA 1434 TTGACTGA GGCTAGCTACAACGA GGACTCAT 13136 6553 GUCCAUCA G UCCAUCAC 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 1314 6556 GUCCAACAA A UGGUUCCA 1437 TTCTTTGA GGCTAGCTACAACGA TCATGTAC 13136 6557 AUCGUUCA UCUGAGGU 1436 TGGAACCA GGCTAGCTACAACGA TCATTGTA 1314 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTTT 13139 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTTT 13139 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTTT 13149 6560 AAAUGGAGA A UGGUAGA 1440 TTTCTTCTA GGCTAGCTACAACGA TCTTTTT 13141 6660 AAAUGGAGA A UGGAGAA 1441 TCTTTCTACA GGCTAGCTACAACGA TCTTTTT 13144 6660 AAAUGGAGA A UGGAGAA 1441 TCTTTCTACA GGCTAGCTACAACGA TCTTTTT 13146 6610 GAGCUUUA A UGUAGAAA 1441 TC	6468	UAAUAAAU A CUCCUUUU	1417		
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6504 UUAGAAUU G UUACUCAG 1422 CTGAGTAA GGCTAGCTACAACGA AATTCTAA 3124 6507 GAAUUGUU A CUCAGCUC 1423 GAGCTGAG GGCTAGCTACAACGA AACAATTC 3125 6512 GUUACUCA G CUCCUUCA 1424 TGAAGGAG GGCTAGCTACAACGA TGAGTAAC 3126 6522 UCCUUCAA A CUCAGGUU 1425 AACCTGAG GGCTAGCTACAACGA TGAGTAAC 3126 6528 AAACUCAG G UUUGUAGC 1426 GCTACAAA GGCTAGCTACAACGA TGAGTTT 3128 6520 UCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA TGAGTTT 3128 6531 UCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA AAACCTGA 3129 6532 UCAGGUUU G UAGCAUAC 1428 CATGTATA GGCTAGCTACAACGA TACAAACC 3130 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA TACAAACC 3130 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA ATGCTACAA 3131 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACAA 3131 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA ATGCTACA 3132 6542 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGCTA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GACTCAT 3135 6553 GUCCAUCC A UCAGUCCA 1434 TTGACTGA GGCTAGCTACAACGA GACTCAT 3136 6553 GUCCAUCC A UCAGUCCA 1436 TTGATGA GGCTAGCTACAACGA GACTCAT 3136 6555 GUCCAUCC A UCAGUCCA 1436 TTGATGA GGCTAGCTACAACGA TCATGTAT 3134 6556 GUCCAUCC A UCAGUCCA 1436 TTGATGA GGCTAGCTACAACGA TCATGTAT 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TCATGGAT 3137 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGA GGCTAGCTACAACGA TCATGGAT 3137 6573 AUGGUUCC A UCUGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3139 6574 AUGGUUCC A UCUGAGAU 1439 CATTAAGA GGCTAGCTACAACGA CATTCTTT 3139 6575 AUGCUUAAU G UAGAAAA 1440 TTTCTTCA GGCTAGCTACAACGA TCAAGGAT 3140 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTTCA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUAAU G UAGAAAGA 1441 TCTTTCAC GGCTAGCTACAACGA TCCAGTTG 3142 6588 GUCUAAAU G UAGAAAGA 1441 TCTTTCAC GGCTAGCTACAACGA TCCAGTTG 3146 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TACAAGTC 3146 6610 GGAGACUU G UAAAAUG 1444 CATTATTA GGCTAGCTACAACGA TCAAGTC 3146 6610 GGAGACUU G UAAAAGA 1446 CTAGCTCA GGCTAGCTACAACGA	6495	GCAAAACC A UUAGAAUU	1420	AATTCTAA GGCTAGCTACAACGA GGTTTTGC	3122
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6512 GUUACUCA G CUCCUUCA 1424 TGAAGGAG GGCTAGCTACAACGA TGAGTAAC 3126 6522 UCCUUCAA A CUCAGGUU 1425 AACCTGAG GGCTAGCTACAACGA TTGAAGGA 3127 6528 AAACUCAG G UUUGUAGC 1426 GCTACAAA GGCTAGCTACAACGA TTGAAGGA 3127 6528 CUCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA AACCTGA 3129 6532 UCAGGUUUGA G CAUACAUG 1428 CATGTATG GGCTAGCTACAACGA AACCTGA 3130 6535 GGUUUGUA G CAUACAUG 1429 CTCATGTA GGCTAGCTACAACGA AACCTGA 3130 6537 UUUGUAGCA A CACAGGAG 1429 CTCATGTA GGCTAGCTACAACGA ATGCAAAA 3131 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA ATGCTACA 3132 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA GTATGCTA 3133 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGACTCAT 3136 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGATGCTACA 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA GGATGGAT 3136 6556 GUCAAAGAA A UGUUCCA 1437 TGGAACCA GGCTAGCTACAACGA TCATTGAT 3139 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCATTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA GGAACCAT 3140 6580 CAUCUGAA G UCUUAAUG 1439 CATTAGAA GGCTAGCTACAACGA TCATGTAT 3140 6580 CAUCUGAA UGUAGAAAA 1440 TTTCTACA GGCTAGCTACAACGA TCAGATG 3141 6680 AAAGAAAA UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TAGAACCA 3142 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA ATTAAGAC 3142 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TAGAACCA 3143 6600 AAAGAAAA A UGGAGACU 1444 CATTATTA GGCTAGCTACAACGA TAGAACCA 3144 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA TAGAACCA 3144 6610 GACUUAAU A UAAAAGAC 1444 CATTATTA GGCTAGCTACAACGA TAGAACCA 3144 6610 GACUUAAU A UAAAAGAC 1444 CATTATTA GGCTAGCTACAACGA TAGAACCA 3144 6610 GACUUAAU A UAAAAGAC 1445 CCTAGCTAC AGCATACTAACGA TATTACAA 3149 6620 AAUAAUAA A UGGAGCU 1447 CATTATTA GGCTAGCTACAACGA TACAAGCT 3146 6620 AAUAAUAA G CUAGUAAC 1447 CATTATTA GGCTAGCTACAACG	6504	UUAGAAUU G UUACUCAG	1422	CTGAGTAA GGCTAGCTACAACGA AATTCTAA	3124
6522 UCCUUCAA A CUCAGGUU 1425 AACCTGAG GGCTAGCTACAACGA TTGAAGGA 3127 6528 AAACUCAG G UUUGUAGC 1426 GCTACAAA GGCTAGCTACAACGA CTGAGTTT 3128 6532 UCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA AAACCTGA 3129 6535 GGUUUGUA G CAUACAUG 1428 CATGTATG GGCTAGCTACAACGA AAACCTGA 3130 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA ACCACAAA 3131 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACAA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA ATGCTACA 3132 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA GTATGCTA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GGACTCAT 3135 6553 GUCCAUCC A UCAUCAG 1434 TTGACTGA GGCTAGCTACAACGA GGACTCAT 3136 6556 GUCCAUCC A UCAUCAG 1435 TTCTTTGA GGCTAGCTACAACGA GGATGGAC 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TCATGTAT 3137 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTGAC 3138 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3139 6580 CAUCUGGA G UCUUAAUG 1439 CATTAGAG GGCTAGCTACAACGA TCCATGTG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTCTTCA GGCTAGCTACAACGA TCCAGATG 3141 6680 CAUCUGGA G UCUUAAUG 1442 AGTTCTCA GGCTAGCTACAACGA TATAGACC 3144 6680 GAGUCUUA G UAGAAAGA 1440 TTCTTCA GGCTAGCTACAACGA TTTTCTTT 3144 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA ATTAAGACC 3146 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA ATTAAGACC 3146 6610 GGAGACUU G UAAUAAUG 1445 GCTCACTTA GGCTAGCTACAACGA TTTTCTTT 3144 6610 GGAGACUU G UAAUAAUG 1446 CTAGCTCA GGCTAGCTACAACGA TTTTCTTT 3146 6610 GAGAGAUU G UAAUAAUG 1447 CTTTCTA GGCTAGCTACAACGA TTTTCTTT 3147 6610 GAGAGAUU G UAAUAAUG 1447 CTTTCTA GGCTAGCTACAACGA TTTTCTTT 3146 6610 GAGAGAUU G UAAUAAUG 1447 CTTTCTA GGCTAGCTACAACGA TTTTCTTT 3146 6610 GAGAGAUU G UAAUAAGA 1446 CTTGTTA GGCTAGCTACAACGA TTTTCAA 3147 6611 UUGUAAAA A UGAGAUAC 1447 GTAACTAG GGCTAGCTACA	6507	GAAUUGUU A CUCAGCUC	1423	GAGCTGAG GGCTAGCTACAACGA AACAATTC	3125
6528 AAACUCAG G UUUGUAGC 1426 GCTACAAA GGCTAGCTACAACGA CTGAGTTT 3128 6532 UCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA AAACCTGA 3129 6535 GGUUUGUA G CAUACAUG 1428 CATGTATG GGCTAGCTACAACGA TACAAACC 3130 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA GTACAAA 3131 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA GTATGCTA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3133 6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GGACTCAT 3135 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGATGGAC 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TCATGGAT 3137 6565 GUCAAAGA A UGGUUCA 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTGAC 3138 6573 AUGGUUCA 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTT <th< td=""><td>6512</td><td>GUUACUCA G CUCCUUCA</td><td>1424</td><td>TGAAGGAG GGCTAGCTACAACGA TGAGTAAC</td><td>3126</td></th<>	6512	GUUACUCA G CUCCUUCA	1424	TGAAGGAG GGCTAGCTACAACGA TGAGTAAC	3126
6532 UCAGGUUU G UAGCAUAC 1427 GTATGCTA GGCTAGCTACAACGA AAACCTGA 3129 6535 GGUUUGUA G CAUACAUG 1428 CATGTATG GGCTAGCTACAACGA TACAAACC 3130 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA TACAAACC 3131 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA ATGCTACA 3132 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA CTCATGTA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6546 AUACAUGA G UCCAUCCA 1432 TTGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGACTCAT 3135 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA GGATGGAC 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TGATGGAT 3137 6565 GUCAAAGA A UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTGAC 3138 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3139 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAAA 1440 TTTCTACA GGCTAGCTACAACGA TACAGATG 3141 6688 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA TATAAGAC 3142 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCAACGA TTTTCTTT 3146 6610 GGAGACUU G UAAUAACG 1445 GCTCACTAT GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UAAUGACC 1445 GCTCACTAT GGCTACCAACGA TACAAGTC 3147 6616 UUGUAAUA A UAAUGACC 1445 GCTCACTAT GGCTACCAACGA TACAAGTC 3147 6616 UUGUAAUA A UAAUGACC 1446 CTTGCTATA GGCTACCAACGA TACAAGTC 3146 6617 AAUAGAG G CUAGUAC 1446 CTTGCTATA GGCTACCAACGA TACATATTT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTACCAACGA TACATATAT 3149 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTACCAACGA TACATATAT 3149 6628 GUUACAAAG G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TA	6522	UCCUUCAA A CUCAGGUU	1425	AACCTGAG GGCTAGCTACAACGA TTGAAGGA	3127
6535 GGUUUGUA G CAUACAUG 1428 CATGTATG GGCTAGCTACAACGA TACAAACC 3130 6537 UUUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA GCTACAAA 3131 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA GTATGCTACA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA GTATGCTA 3134 6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GGACTCAT 3135 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGACTCAT 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA GGATGGAT 3136 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCATTGTAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTGAC 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3139 6580 CAUCUGGA G UCUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCTTGAC 3140 6580 CAUCUGGA G UCUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TCCAGATG 3141 6600 AAAGAAAA A UGGAGAC 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGAC 1442 AGTCTCCA GGCTAGCTACAACGA ATTAAGAC 3144 6600 AAAGAAAA A UGGAGAC 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6600 GAAACGA A CUUGUAAU 1442 AGTCTCCA GGCTAGCTACAACGA ATTAAGAC 3143 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA TTTTCTTT 3144 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA ATTAAGAC 3146 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA ATTACTAT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA TTCCATTT 3145 6610 AAUGAGA A UGAGAGA 1446 CTTAGTTA GGCTAGCTACAACGA TTCCATTT 3146 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TACTACATT 3149 6624 AUGAGCUA G UAAAAAGG 1448 CTTTGTAA GGCTAGCTACAACGA TACTACATT 3149 6624 AUGAGCUA G UAAAAAGG 1448 CTTTGTAA GGCTAGCTACAACGA TACTACAT 3150 6624 AUGAGCUA G UAAAAAGG 1448 CTTTGTAA GGCTAGCTACAACGA TACTACAT 3150 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TACTACAT 3150 6634 UACAAAGU G CUAGUUCA 1445 GCACTTG GGCTAGCTAC	6528	AAACUCAG G UUUGUAGC	1426	GCTACAAA GGCTAGCTACAACGA CTGAGTTT	3128
6537 UJUGUAGC A UACAUGAG 1429 CTCATGTA GGCTAGCTACAACGA GCTACAAA 3131 6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGATGA GGCTAGCTACAACGA GTATGCTA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA GACTCATA 3134 6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GACTCAT 3135 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GATGGAT 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TGATGGAT 3137 6565 GUCAAAGA A UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTGAC 3138 6565 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTGAC 3138 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3149 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTACCAACGA TCCAGATG 3141 6588 GUCUUAAU G UAGAAGA 1441 TCTTCTA GGCTAGCTACAACGA ATTAAGACT	6532	UCAGGUUU G UAGCAUAC	1427	GTATGCTA GGCTAGCTACAACGA AAACCTGA	3129
6539 UGUAGCAU A CAUGAGUC 1430 GACTCATG GGCTAGCTACAACGA ATGCTACA 3132 6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA GTATGCTA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GGACTCAT 3135 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGATGGAC 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TGATGGAT 3137 6565 GUCAAAGA A UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTT 3139 6573 AUGGUUCC A UCUGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATCTTT 3140 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGGAGACA 1441 TTTCTTACA GGCTAGCTACAACGA TTAGACCT 3142 6586 GAUCUAAU G UAGAAGA 1441 TCTTTCTA GGCTAGCTACAACGA TTTTCTT	6535	GGUUUGUA G CAUACAUG	1428	CATGTATG GGCTAGCTACAACGA TACAAACC	3130
6541 UAGCAUAC A UGAGUCCA 1431 TGGACTCA GGCTAGCTACAACGA GTATGCTA 3133 6545 AUACAUGA G UCCAUCCA 1432 TGGATGGA GGCTAGCTACAACGA TCATGTAT 3134 6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GGACTCAT 3135 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGACTCAT 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA GGATGGAC 3136 6556 GUCAAAGAA UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TGATGGAT 3137 6565 GUCAAAGAA UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA TCTTTTGAC 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TCCAGATG 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTAC GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA TCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA ATTACAA 3146 6613 GACUUGUA A UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TACAAGTC 3147 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TACAAGTC 3149 6621 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TACTAATT 3149 6622 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TACTAATT 3149 6623 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA ACTAGCT 3150 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA ACTTGTA 3150 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTGTA 3153	6537	UUUGUAGC A UACAUGAG	1429	CTCATGTA GGCTAGCTACAACGA GCTACAAA	3131
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6549 AUGAGUCC A UCCAUCAG 1433 CTGATGGA GGCTAGCTACAACGA GGACTCAT 3135 6553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGATGGAC 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TGATGGAT 3137 6565 GUCAAAGA A UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA CATTCTTT 3140 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TCAAGCA 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTACGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTCTTT 3144 6610 GGAGACUU G UAAUAAUG 1443 ATTACAAG GGCTAGCTACAACGA TCCCATTT 3145 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC	6541	UAGCAUAC A UGAGUCCA	1431	TGGACTCA GGCTAGCTACAACGA GTATGCTA	3133
G553 GUCCAUCC A UCAGUCAA 1434 TTGACTGA GGCTAGCTACAACGA GGATGGAC 3136 6557 AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TGATGGAT 3137 6565 GUCAAAGA A UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA GGAACCAT 3140 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TACAACGA 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA TATAAGACTC 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA TATAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA TCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA TCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA TACAAGTC 3147 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TACAAGTC 3147 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6621 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TCATTATT 3149 6622 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TACTAGCT 3150 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTTCTAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA TTTTTAAC 3152	6545	AUACAUGA G UCCAUCCA	1432	TGGATGGA GGCTAGCTACAACGA TCATGTAT	3134
AUCCAUCA G UCAAAGAA 1435 TTCTTTGA GGCTAGCTACAACGA TGATGGAT 3137 6565 GUCAAAGA A UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTTGAC 3138 6568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA GGAACCAT 3140 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TAAGACTC 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA TTTTCTTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AGTCTCC 3146 6613 GACUUGUA A UAAUAAUG 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TACAAGTC 3147 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TACAAGTC 3149 6621 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TCATTATT 3149 6622 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TACAAGTC 3150 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TACATATT 3149 6625 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA TACTTATT 3150 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TACTTATC 3151 6632 GUUACAAAG G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6549	AUGAGUCC A UCCAUCAG	1433	CTGATGGA GGCTAGCTACAACGA GGACTCAT	3135
G565 GUCAAAGA A UGGUUCCA 1436 TGGAACCA GGCTAGCTACAACGA TCTTTGAC 3138 G568 AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTT 3139 G573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA GGAACCAT 3140 G580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 G586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TAAGACTC 3142 G588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 G600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 G606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA TTTTCTTT 3145 G610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AGTCTCC 3146 G613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 G616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TACAAGTC 3147 G620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TACTACAA 3148 G620 AAUAAUGA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TCATTATT 3149 G624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TACTACAT 3150 G632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA AACTAGCT 3151 G632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 G634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTGTA 3153	6553	GUCCAUCC A UCAGUCAA	1434	TTGACTGA GGCTAGCTACAACGA GGATGGAC	3136
AAAGAAUG G UUCCAUCU 1437 AGATGGAA GGCTAGCTACAACGA CATTCTTT 3139 6573 AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA GGAACCAT 3140 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TAAGACTC 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA TTTTCTTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAAG UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTTTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTAAC 3153	6557	AUCCAUCA G UCAAAGAA	1435	TTCTTTGA GGCTAGCTACAACGA TGATGGAT	3137
AUGGUUCC A UCUGGAGU 1438 ACTCCAGA GGCTAGCTACAACGA GGAACCAT 3140 6580 CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TAAGACTC 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA CTCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TACAAGTC 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAAG UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA ACTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTAAC 3152	6565	GUCAAAGA A UGGUUCCA	1436	TGGAACCA GGCTAGCTACAACGA TCTTTGAC	3138
CAUCUGGA G UCUUAAUG 1439 CATTAAGA GGCTAGCTACAACGA TCCAGATG 3141 6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TAAGACTC 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA CTCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TACAAGTC 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAAG UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6568	AAAGAAUG G UUCCAUCU	1437	AGATGGAA GGCTAGCTACAACGA CATTCTTT	3139
6586 GAGUCUUA A UGUAGAAA 1440 TTTCTACA GGCTAGCTACAACGA TAAGACTC 3142 6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA CTCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTTGTAAC 3152	6573	AUGGUUCC A UCUGGAGU	1438	ACTCCAGA GGCTAGCTACAACGA GGAACCAT	3140
6588 GUCUUAAU G UAGAAAGA 1441 TCTTTCTA GGCTAGCTACAACGA ATTAAGAC 3143 6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA CTCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAAG UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6580	CAUCUGGA G UCUUAAUG	1439	CATTAAGA GGCTAGCTACAACGA TCCAGATG	3141
6600 AAAGAAAA A UGGAGACU 1442 AGTCTCCA GGCTAGCTACAACGA TTTTCTTT 3144 6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA CTCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6586	GAGUCUUA A UGUAGAAA	1440	TTTCTACA GGCTAGCTACAACGA TAAGACTC	3142
6606 AAAUGGAG A CUUGUAAU 1443 ATTACAAG GGCTAGCTACAACGA CTCCATTT 3145 6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6588	GUCUUAAU G UAGAAAGA	1441	TCTTTCTA GGCTAGCTACAACGA ATTAAGAC	3143
6610 GGAGACUU G UAAUAAUG 1444 CATTATTA GGCTAGCTACAACGA AAGTCTCC 3146 6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6600	AAAGAAAA A UGGAGACU	1442	AGTCTCCA GGCTAGCTACAACGA TTTTCTTT	3144
6613 GACUUGUA A UAAUGAGC 1445 GCTCATTA GGCTAGCTACAACGA TACAAGTC 3147 6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6606	AAAUGGAG A CUUGUAAU	1443	ATTACAAG GGCTAGCTACAACGA CTCCATTT	3145
6616 UUGUAAUA A UGAGCUAG 1446 CTAGCTCA GGCTAGCTACAACGA TATTACAA 3148 6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6610	GGAGACUU G UAAUAAUG	1444	CATTATTA GGCTAGCTACAACGA AAGTCTCC	3146
6620 AAUAAUGA G CUAGUUAC 1447 GTAACTAG GGCTAGCTACAACGA TCATTATT 3149 6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTGTA 3153	6613	GACUUGUA A UAAUGAGC	1445	GCTCATTA GGCTAGCTACAACGA TACAAGTC	3147
6624 AUGAGCUA G UUACAAAG 1448 CTTTGTAA GGCTAGCTACAACGA TAGCTCAT 3150 6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6616	UUGUAAUA A UGAGCUAG	1446	CTAGCTCA GGCTAGCTACAACGA TATTACAA	3148
6627 AGCUAGUU A CAAAGUGC 1449 GCACTTTG GGCTAGCTACAACGA AACTAGCT 3151 6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6620	AAUAAUGA G CUAGUUAC	1447	GTAACTAG GGCTAGCTACAACGA TCATTATT	3149
6632 GUUACAAA G UGCUUGUU 1450 AACAAGCA GGCTAGCTACAACGA TTTGTAAC 3152 6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6624	AUGAGCUA G UUACAAAG	1448	CTTTGTAA GGCTAGCTACAACGA TAGCTCAT	3150
6634 UACAAAGU G CUUGUUCA 1451 TGAACAAG GGCTAGCTACAACGA ACTTTGTA 3153	6627	AGCUAGUU A CAAAGUGC	1449	GCACTTTG GGCTAGCTACAACGA AACTAGCT	3151
	6632	GUUACAAA G UGCUUGUU	1450	AACAAGCA GGCTAGCTACAACGA TTTGTAAC	3152
6638 AAGUGCUU G UUCAUUAA 1452 TTAATGAA GGCTAGCTACAACGA AAGCACTT 3154	6634	UACAAAGU G CUUGUUCA	1451	TGAACAAG GGCTAGCTACAACGA ACTTTGTA	3153
	6638	AAGUGCUU G UUCAUUAA	1452	TTAATGAA GGCTAGCTACAACGA AAGCACTT	3154

C 5 5 1 5	CONTOURIS A TELEBRATION	1453	I TO THE TOTAL AND THE TOTAL CONTROL OF THE TOTAL C	2155
6642	GCUUGUUC A UUAAAAUA	1453	TATTTTAA GGCTAGCTACAACGA GAACAAGC CAGTGCTA GGCTAGCTACAACGA TTTAATGA	3155
6648	UCAUUAAA A UAGCACUG	1454		3156
6651	UUAAAAUA G CACUGAAA	1455	TTTCAGTG GGCTAGCTACAACGA TATTTTAA	3157
6653	AAAAUAGC A CUGAAAAU	1456	ATTTCAG GGCTAGCTACAACGA GCTATTTT	3158
6660	CACUGAAA A UUGAAACA	1457	TGTTTCAA GGCTAGCTACAACGA TTTCAGTG	3159
6666	AAAUUGAA A CAUGAAUU	1458	AATTCATG GGCTAGCTACAACGA TTCAATTT	
6668	AUUGAAAC A UGAAUUAA	1459	TTAATTCA GGCTAGCTACAACGA GTTTCAAT	3161
6672	AAACAUGA A UUAACUGA	1460	TCAGTTAA GGCTAGCTACAACGA TCATGTTT	3162
6676	AUGAAUUA A CUGAUAAU	1461	ATTATCAG GGCTAGCTACAACGA TAATTCAT	3163
6680	AUUAACUG A UAAUAUUC	1462	GAATATTA GGCTAGCTACAACGA CAGTTAAT	3164
6683	AACUGAUA A UAUUCCAA	1463	TTGGAATA GGCTAGCTACAACGA TATCAGTT	3165
6685	CUGAUAAU A UUCCAAUC	1464	GATTGGAA GGCTAGCTACAACGA ATTATCAG	3166
6691	AUAUUCCA A UCAUUUGC	1465	GCAAATGA GGCTAGCTACAACGA TGGAATAT	3167
6694	UUCCAAUC A UUUGCCAU	1466	ATGGCAAA GGCTAGCTACAACGA GATTGGAA	3168
6698	AAUCAUUU G CCAUUUAU	1467	ATAAATGG GGCTAGCTACAACGA AAATGATT	3169
6701	CAUUUGCC A UUUAUGAC	1468	GTCATAAA GGCTAGCTACAACGA GGCAAATG	3170
6705	UGCCAUUU A UGACAAAA	1469	TTTTGTCA GGCTAGCTACAACGA AAATGGCA	3171
6708	CAUUUAUG A CAAAAAUG	1470	CATTTTTG GGCTAGCTACAACGA CATAAATG	3172
6714	UGACAAAA A UGGUUGGC	1471	GCCAACCA GGCTAGCTACAACGA TTTTGTCA	3173
6717	CAAAAAUG G UUGGCACU	1472	AGTGCCAA GGCTAGCTACAACGA CATTTTTG	3174
6721	AAUGGUUG G CACUAACA	1473	TGTTAGTG GGCTAGCTACAACGA CAACCATT	3175
6723	UGGUUGGC A CUAACAAA	1474	TTTGTTAG GGCTAGCTACAACGA GCCAACCA	3176
6727	UGGCACUA A CAAAGAAC	1475	GTTCTTTG GGCTAGCTACAACGA TAGTGCCA	3177
6734	AACAAAGA A CGAGCACU	1476	AGTGCTCG GGCTAGCTACAACGA TCTTTGTT	3178
6738	AAGAACGA G CACUUCCU	1477	AGGAAGTG GGCTAGCTACAACGA TCGTTCTT	3179
6740	GAACGAGC A CUUCCUUU	1478	AAAGGAAG GGCTAGCTACAACGA GCTCGTTC	3180
6753	CUUUCAGA G UUUCUGAG	1479	CTCAGAAA GGCTAGCTACAACGA TCTGAAAG	3181
6762	UUUCUGAG A UAAUGUAC	1480	GTACATTA GGCTAGCTACAACGA CTCAGAAA	3182
6765	CUGAGAUA A UGUACGUG	1481	CACGTACA GGCTAGCTACAACGA TATCTCAG	3183
6767	GAGAUAAU G UACGUGGA	1482	TCCACGTA GGCTAGCTACAACGA ATTATCTC	3184
6769	GAUAAUGU A CGUGGAAC	1483	GTTCCACG GGCTAGCTACAACGA ACATTATC	3185
6771	UAAUGUAC G UGGAACAG	1484	CTGTTCCA GGCTAGCTACAACGA GTACATTA	3186
6776	UACGUGGA A CAGUCUGG	1485	CCAGACTG GGCTAGCTACAACGA TCCACGTA	3187
6779	GUGGAACA G UCUGGGUG	1486	CACCCAGA GGCTAGCTACAACGA TGTTCCAC	3188
6785	CAGUCUGG G UGGAAUGG	1487	CCATTCCA GGCTAGCTACAACGA CCAGACTG	3189
6790	UGGGUGGA A UGGGGCUG	1488	CAGCCCCA GGCTAGCTACAACGA TCCACCCA	3190
6795	GGAAUGGG G CUGAAACC	1489	GGTTTCAG GGCTAGCTACAACGA CCCATTCC	3191
6801	GGGCUGAA A CCAUGUGC	1490	GCACATGG GGCTAGCTACAACGA TTCAGCCC	3192
6804	CUGAAACC A UGUGCAAG	1491	CTTGCACA GGCTAGCTACAACGA GGTTTCAG	3193
6806	GAAACCAU G UGCAAGUC	1492	GACTTGCA GGCTAGCTACAACGA ATGGTTTC	3194
6808	AACCAUGU G CAAGUCUG	1493	CAGACTTG GGCTAGCTACAACGA ACATGGTT	3195
6812	AUGUGCAA G UCUGUGUC	1494	GACACAGA GGCTAGCTACAACGA TTGCACAT	3196
6816	GCAAGUCU G UGUCUUGU	1495	ACAAGACA GGCTAGCTACAACGA AGACTTGC	3197
6818	AAGUCUGU G UCUUGUCA	1496	TGACAAGA GGCTAGCTACAACGA ACAGACTT	3198
6823	UGUGUCUU G UCAGUCCA	1497	TGGACTGA GGCTAGCTACAACGA AAGACACA	3199
6827	UCUUGUCA G UCCAAGAA	1498	TTCTTGGA GGCTAGCTACAACGA TGACAAGA	3200
6836	UCCAAGAA G UGACACCG	1499	CGGTGTCA GGCTAGCTACAACGA TTCTTGGA	3201
6839	AAGAAGUG A CACCGAGA	1500	TCTCGGTG GGCTAGCTACAACGA CACTTCTT	3202
6841	GAAGUGAC A CCGAGAUG	1501	CATCTCGG GGCTAGCTACAACGA GTCACTTC	3203
6847	ACACCGAG A UGUUAAUU	1502	AATTAACA GGCTAGCTACAACGA CTCGGTGT	3204
6849	ACCGAGAU G UUAAUUUU	1503	AAAATTAA GGCTAGCTACAACGA ATCTCGGT	3205
6853	AGAUGUUA A UUUUAGGG	1504	CCCTAAAA GGCTAGCTACAACGA TAACATCT	3206

6862	UUUUAGGG A CCCGUGCC	1505	GGCACGGG GGCTAGCTACAACGA CCCTAAAA	3207
6866	AGGGACCC G UGCCUUGU	1505	ACAAGGCA GGCTAGCTACAACGA GGGTCCCT	3207
6868	GGACCCGU G CCUUGUUU	1507	AAACAAGG GGCTAGCTACAACGA ACGGGTCC	3208
6873	CGUGCCUU G UUUCCUAG	1507		
6881	GUUUCCUA G CCCACAAG	1509	CTAGGAAA GGCTAGCTACAACGA AAGGCACG CTTGTGGG GGCTAGCTACAACGA TAGGAAAC	3210
				3211
6885	CCUAGCCC A CAAGAAUG	1510	CATTCTTG GGCTAGCTACAACGA GGGCTAGG	3212
6891	CCACAAGA A UGCAAACA	1511	TGTTTGCA GGCTAGCTACAACGA TCTTGTGG	3213
6893	ACAAGAAU G CAAACAUC	1512	GATGTTTG GGCTAGCTACAACGA ATTCTTGT	3214
6897	GAAUGCAA A CAUCAAAC	1513	GTTTGATG GGCTAGCTACAACGA TTGCATTC	3215
6899	AUGCAAAC A UCAAACAG	1514	CTGTTTGA GGCTAGCTACAACGA GTTTGCAT	3216
6904	AACAUCAA A CAGAUACU	1515	AGTATCTG GGCTAGCTACAACGA TTGATGTT	3217
6908	UCAAACAG A UACUCGCU	1516	AGCGAGTA GGCTAGCTACAACGA CTGTTTGA	3218
6910	AAACAGAU A CUCGCUAG	1517	CTAGCGAG GGCTAGCTACAACGA ATCTGTTT	3219
6914	AGAUACUC G CUAGCCUC	1518	GAGGCTAG GGCTAGCTACAACGA GAGTATCT	3220
6918	ACUCGCUA G CCUCAUUU	1519	AAATGAGG GGCTAGCTACAACGA TAGCGAGT	3221
6923	CUAGCCUC A UUUAAAUU	1520	AATTTAAA GGCTAGCTACAACGA GAGGCTAG	3222
6929	UCAUUUAA A UUGAUUAA	1521	TTAATCAA GGCTAGCTACAACGA TTAAATGA	3223
6933	UUAAAUUG A UUAAAGGA	1522	TCCTTTAA GGCTAGCTACAACGA CAATTTAA	3224
6945	AAGGAGGA G UGCAUCUU	1523	AAGATGCA GGCTAGCTACAACGA TCCTCCTT	3225
6947	GGAGGAGU G CAUCUUUG	1524	CAAAGATG GGCTAGCTACAACGA ACTCCTCC	3226
6949	AGGAGUGC A UCUUUGGC	1525	GCCAAAGA GGCTAGCTACAACGA GCACTCCT	3227
6956	CAUCUUUG G CCGACAGU	1526	ACTGTCGG GGCTAGCTACAACGA CAAAGATG	3228
6960	UUUGGCCG A CAGUGGUG	1527	CACCACTG GGCTAGCTACAACGA CGGCCAAA	3229
6963	GGCCGACA G UGGUGUAA	1528	TTACACCA GGCTAGCTACAACGA TGTCGGCC	3230
6966	CGACAGUG G UGUAACUG	1529	CAGTTACA GGCTAGCTACAACGA CACTGTCG	3231
6968	ACAGUGGU G UAACUGUG	1530	CACAGTTA GGCTAGCTACAACGA ACCACTGT	3232
6971	GUGGUGUA A CUGUGUGU	1531	ACACACAG GGCTAGCTACAACGA TACACCAC	3233
6974	GUGUAACU G UGUGUGUG	1532	CACACACA GGCTAGCTACAACGA AGTTACAC	3234
6976	GUAACUGU G UGUGUGUG	1533	CACACACA GGCTAGCTACAACGA ACAGTTAC	3235
6978	AACUGUGU G UGUGUGUG	1534	CACACACA GGCTAGCTACAACGA ACACAGTT	3236
6980	CUGUGUGU G UGUGUGUG	1535	CACACACA GGCTAGCTACAACGA ACACACAG	3237
6982	GUGUGUGU G UGUGUGUG	1536	CACACACA GGCTAGCTACAACGA ACACACAC	3238
6984	GUGUGUGU G UGUGUGUG	1537	CACACACA GGCTAGCTACAACGA ACACACAC	3239
6986	GUGUGUGU G UGUGUGUG	1538	CACACACA GGCTAGCTACAACGA ACACACAC	3240
6988	GUGUGUGU G UGUGUGUG	1539	CACACACA GGCTAGCTACAACGA ACACACAC	3241
6990	GUGUGUGU G UGUGUGUG	1540	CACACACA GGCTAGCTACAACGA ACACACAC	3242
6992	GUGUGUGU G UGUGUGUG	1541	CACACACA GGCTAGCTACAACGA ACACACAC	3243
6994	GUGUGUGU G UGUGUGUG	1542	CACACACA GGCTAGCTACAACGA ACACACAC	3244
6996	GUGUGUGU G UGUGUGUG	1543	CACACACA GGCTAGCTACAACGA ACACACAC	3245
6998	GUGUGUGU G UGUGUGUG	1544	CACACACA GGCTAGCTACAACGA ACACACAC	3246
7000	GUGUGUGU G UGUGUGUG	1545	CACACACA GGCTAGCTACAACGA ACACACAC	3247
7002	GUGUGUGU G UGUGUGUG	1546	CACACACA GGCTAGCTACAACGA ACACACAC	3248
7004	GUGUGUGU G UGUGUGUG	1547	CACACACA GGCTAGCTACAACGA ACACACAC	3249
7006	GUGUGUGU G UGUGUGUG	1548	CACACACA GGCTAGCTACAACGA ACACACAC	3250
7008	GUGUGUGU G UGUGUGGG	1549	CCCACACA GGCTAGCTACAACGA ACACACAC	3251
7010	GUGUGUGU G UGUGGGUG	1550	CACCCACA GGCTAGCTACAACGA ACACACAC	3252
7012	GUGUGUGU G UGGGUGUG	1551	CACACCCA GGCTAGCTACAACGA ACACACAC	3253
7016	GUGUGUGG G UGUGGGUG	1552	CACCCACA GGCTAGCTACAACGA CCACACAC	3254
7018	GUGUGGGU G UGGGUGUA	1553	TACACCCA GGCTAGCTACAACGA ACCCACAC	3255
7022	GGGUGUGG G UGUAUGUG	1554	CACATACA GGCTAGCTACAACGA CCACACCC	3256
7024	GUGUGGGU G UAUGUGUG	1555	CACACATA GGCTAGCTACAACGA ACCCACAC	3257
7026	GUGGGUGU A UGUGUGUU	1556	AACACACA GGCTAGCTACAACGA ACACCCAC	3258

7028	GGGUGUAU G UGUGUUUU	1557	AAAACACA GGCTAGCTACAACGA ATACACCC	3259
7030	GUGUAUGU G UGUUUUGU	1558	ACAAAACA GGCTAGCTACAACGA ACATACAC	3260
7030	GUAUGUGU G UUUUGUGC	1559	GCACAAAA GGCTAGCTACAACGA ACACATAC	3261
7037	UGUGUUUU G UGCAUAAC	1560	GTTATGCA GGCTAGCTACAACGA AAAACACA	3262
7037	UGUUUUGU G CAUAACUA	1561	TAGTTATG GGCTAGCTACAACGA ACAAAACA	3263
7041	UUUUGUGC A UAACUAUU	1562	AATAGTTA GGCTAGCTACAACGA GCACAAAA	3264
7044	UGUGCAUA A CUAUUUAA	1563	TTAAATAG GGCTAGCTACAACGA TATGCACA	3265
7047	GCAUAACU A UUUAAGGA	1564	TCCTTAAA GGCTAGCTACAACGA AGTTATGC	3266
7057	UUAAGGAA A CUGGAAUU	1565	AATTCCAG GGCTAGCTACAACGA TTCCTTAA	3267
7063	AAACUGGA A UUUUAAAG	1566	CTTTAAAA GGCTAGCTACAACGA TCCAGTTT	3268
7071	AUUUUAAA G UUACUUUU	1567	AAAAGTAA GGCTAGCTACAACGA TTTAAAAT	3269
7074	UUAAAGUU A CUUUUAUA	1568	TATAAAAG GGCTAGCTACAACGA AACTTTAA	3270
7080	UUACUUUU A UACAAACC	1569	GGTTTGTA GGCTAGCTACAACGA AAAAGTAA	3271
7082	ACUUUUAU A CAAACCAA	1570	TTGGTTTG GGCTAGCTACAACGA ATAAAAGT	3272
7086	UUAUACAA A CCAAGAAU	1571	ATTCTTGG GGCTAGCTACAACGA TTGTATAA	3273
7093	AACCAAGA A UAUAUGCU	1572	AGCATATA GGCTAGCTACAACGA TCTTGGTT	3274
7095	CCAAGAAU A UAUGCUAC	1573	GTAGCATA GGCTAGCTACAACGA ATTCTTGG	3275
7097	AAGAAUAU A UGCUACAG	1574	CTGTAGCA GGCTAGCTACAACGA ATATTCTT	3276
7099	GAAUAUAU G CUACAGAU	1575	ATCTGTAG GGCTAGCTACAACGA ATATATTC	3277
7102	UAUAUGCU A CAGAUAUA	1576	TATATCTG GGCTAGCTACAACGA AGCATATA	3278
7106	UGCUACAG A UAUAAGAC	1577	GTCTTATA GGCTAGCTACAACGA CTGTAGCA	3279
7108	CUACAGAU A UAAGACAG	1578	CTGTCTTA GGCTAGCTACAACGA ATCTGTAG	3280
7113	GAUAUAAG A CAGACAUG	1579	CATGTCTG GGCTAGCTACAACGA CTTATATC	3281
7117	UAAGACAG A CAUGGUUU	1580	AAACCATG GGCTAGCTACAACGA CTGTCTTA	3282
7119	AGACAGAC A UGGUUUGG	1581	CCAAACCA GGCTAGCTACAACGA GTCTGTCT	3283
7122	CAGACAUG G UUUGGUCC	1582	GGACCAAA GGCTAGCTACAACGA CATGTCTG	3284
7127	AUGGUUUG G UCCUAUAU	1583	ATATAGGA GGCTAGCTACAACGA CAAACCAT	3285
7132	UUGGUCCU A UAUUUCUA	1584	TAGAAATA GGCTAGCTACAACGA AGGACCAA	3286
7134	GGUCCUAU A UUUCUAGU	1585	ACTAGAAA GGCTAGCTACAACGA ATAGGACC	3287
7141	UAUUUCUA G UCAUGAUG	1586	CATCATGA GGCTAGCTACAACGA TAGAAATA	3288
7144	UUCUAGUC A UGAUGAAU	1587	ATTCATCA GGCTAGCTACAACGA GACTAGAA	3289
7147	UAGUCAUG A UGAAUGUA	1588	TACATTCA GGCTAGCTACAACGA CATGACTA	3290
7151	CAUGAUGA A UGUAUUUU	1589	AAAATACA GGCTAGCTACAACGA TCATCATG	3291
7153	UGAUGAAU G UAUUUUGU	1590	ACAAAATA GGCTAGCTACAACGA ATTCATCA	3292
7155	AUGAAUGU A UUUUGUAU	1591	ATACAAAA GGCTAGCTACAACGA ACATTCAT	3293
7160	UGUAUUUU G UAUACCAU	1592	ATGGTATA GGCTAGCTACAACGA AAAATACA	3294
7162	UAUUUUGU A UACCAUCU	1593	AGATGGTA GGCTAGCTACAACGA ACAAAATA	3295
7164	UUUUGUAU A CCAUCUUC	1594	GAAGATGG GGCTAGCTACAACGA ATACAAAA	3296
7167	UGUAUACC A UCUUCAUA	1595	TATGAAGA GGCTAGCTACAACGA GGTATACA	3297
7173	CCAUCUUC A UAUAAUAU	1596	ATATTATA GGCTAGCTACAACGA GAAGATGG	3298
7175	AUCUUCAU A UAAUAUAC	1597	GTATATTA GGCTAGCTACAACGA ATGAAGAT	3299
7178	UUCAUAUA A UAUACUUA	1598	TAAGTATA GGCTAGCTACAACGA TATATGAA	3300
7180	CAUAUAAU A UACUUAAA	1599	TTTAAGTA GGCTAGCTACAACGA ATTATATG	3301
7182	UAUAAUAU A CUUAAAAA	1600	TTTTTAAG GGCTAGCTACAACGA ATATTATA	3302
7190	ACUUAAAA A UAUUUCUU	1601	AAGAAATA GGCTAGCTACAACGA TTTTAAGT	3303
7192	UUAAAAU A UUUCUUAA	1602	TTAAGAAA GGCTAGCTACAACGA ATTTTTAA	3304
7200	AUUUCUUA A UUGGGAUU	1603	AATCCCAA GGCTAGCTACAACGA TAAGAAAT	3305
7206	UAAUUGGG A UUUGUAAU	1604	ATTACAAA GGCTAGCTACAACGA CCCAATTA	3306
7210	UGGGAUUU G UAAUCGUA	1605	TACGATTA GGCTAGCTACAACGA AAATCCCA	3307
7213	GAUUUGUA A UCGUACCA	1606	TGGTACGA GGCTAGCTACAACGA TACAAATC	3308
7216	UUGUAAUC G UACCAACU	1607	AGTTGGTA GGCTAGCTACAACGA GATTACAA	3309
7218	GUAAUCGU A CCAACUUA	1608	TAAGTTGG GGCTAGCTACAACGA ACGATTAC	3310

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7222	UCGUACCA A CUUAAUUG	1609	CAATTAAG GGCTAGCTACAACGA TGGTACGA	3311
7227	CCAACUUA A UUGAUAAA	1610	TTTATCAA GGCTAGCTACAACGA TAAGTTGG	3312
7231	CUUAAUUG A UAAACUUG	1611	CAAGTTTA GGCTAGCTACAACGA CAATTAAG	3313
7235	AUUGAUAA A CUUGGCAA	1612	TTGCCAAG GGCTAGCTACAACGA TTATCAAT	3314
7240	UAAACUUG G CAACUGCU	1613	AGCAGTTG GGCTAGCTACAACGA CAAGTTTA	3315
7243	ACUUGGCA A CUGCUUUU	1614	AAAAGCAG GGCTAGCTACAACGA TGCCAAGT	3316
7246	UGGCAACU G CUUUUAUG	1615	CATAAAAG GGCTAGCTACAACGA AGTTGCCA	3317
7252	CUGCUUUU A UGUUCUGU	1616	ACAGAACA GGCTAGCTACAACGA AAAAGCAG	3318
7254	GCUUUUAU G UUCUGUCU	1617	AGACAGAA GGCTAGCTACAACGA ATAAAAGC	3319
7259	UAUGUUCU G UCUCCUUC	1618	GAAGGAGA GGCTAGCTACAACGA AGAACATA	3320
7269	CUCCUUCC A UAAAUUUU	1619	AAAATTTA GGCTAGCTACAACGA GGAAGGAG	3321
7273	UUCCAUAA A UUUUUCAA	1620	TTGAAAAA GGCTAGCTACAACGA TTATGGAA	3322
7283	UUUUCAAA A UACUAAUU	1621	AATTAGTA GGCTAGCTACAACGA TTTGAAAA	3323
7285	UUCAAAAU A CUAAUUCA	1622	TGAATTAG GGCTAGCTACAACGA ATTTTGAA	3324
7289	AAAUACUA A UUCAACAA	1623	TTGTTGAA GGCTAGCTACAACGA TAGTATTT	3325
7294	CUAAUUCA A CAAAGAAA	1624	TTTCTTTG GGCTAGCTACAACGA TGAATTAG	3326
7305	AAGAAAAA G CUCUUUUU	1625	AAAAAGAG GGCTAGCTACAACGA TTTTTCTT	3327
7323	UUCCUAAA A UAAACUCA	1626	TGAGTTTA GGCTAGCTACAACGA TTTAGGAA	3327
7327	UAAAAUAA A CUCAAAUU	1627	AATTTGAG GGCTAGCTACAACGA TTATTTTA	3329
7333	AAACUCAA A UUUAUCCU	1628	AGGATAAA GGCTAGCTACAACGA TTGAGTTT	3330
7337	UCAAAUUU A UCCUUGUU	1629	AACAAGGA GGCTAGCTACAACGA AAATTTGA	3331
7343	UUAUCCUU G UUUAGAGC	1630	GCTCTAAA GGCTAGCTACAACGA AAGGATAA	3332
7350	UGUUUAGA G CAGAGAAA	1631	TTTCTCTG GGCTAGCTACAACGA TCTAAACA	3333
7360	AGAGAAAA A UUAAGAAA	1632	TTTCTTAA GGCTAGCTACAACGA TTTTCTCT	3334
7370	UAAGAAAA A CUUUGAAA	1633	TTTCAAAG GGCTAGCTACAACGA TTTTCTTA	3335
7378	ACUUUGAA A UGGUCUCA	1634	TGAGACCA GGCTAGCTACAACGA TTCAAAGT	3336
7381	UUGAAAUG G UCUCAAAA	1635	TTTTGAGA GGCTAGCTACAACGA CATTTCAA	3337
7391	CUCAAAAA A UUGCUAAA	1636	TTTAGCAA GGCTAGCTACAACGA TTTTTGAG	3338
7394	AAAAAAUU G CUAAAUAU	1637	ATATTTAG GGCTAGCTACAACGA AATTTTTT	3339
7399	AUUGCUAA A UAUUUUCA	1638	TGAAAATA GGCTAGCTACAACGA TTAGCAAT	3340
7401	UGCUAAAU A UUUUCAAU	1639	ATTGAAAA GGCTAGCTACAACGA ATTTAGCA	3341
7408	UAUUUUCA A UGGAAAAC	1640	GTTTTCCA GGCTAGCTACAACGA TGAAAATA	3342
7415	AAUGGAAA A CUAAAUGU	1641	ACATTTAG GGCTAGCTACAACGA TTTCCATT	3343
7420	AAAACUAA A UGUUAGUU	1642	AACTAACA GGCTAGCTACAACGA TTAGTTTT	3344
7422	AACUAAAU G UUAGUUUA	1643	TAAACTAA GGCTAGCTACAACGA ATTTAGTT	3345
7426	AAAUGUUA G UUUAGCUG	1644	CAGCTAAA GGCTAGCTACAACGA TAACATTT	3346
7431	UUAGUUUA G CUGAUUGU	1645	ACAATCAG GGCTAGCTACAACGA TAAACTAA	3347
7435	UUUAGCUG A UUGUAUGG	1646	CCATACAA GGCTAGCTACAACGA CAGCTAAA	3348
7438	AGCUGAUU G UAUGGGGU	1647	ACCCCATA GGCTAGCTACAACGA AATCAGCT	3349
7440	CUGAUUGU A UGGGGUUU	1648	AAACCCCA GGCTAGCTACAACGA ACAATCAG	3350
7445	UGUAUGGG G UUUUCGAA	1649	TTCGAAAA GGCTAGCTACAACGA CCCATACA	3351
7453	GUUUUCGA A CCUUUCAC	1650	GTGAAAGG GGCTAGCTACAACGA TCGAAAAC	3352
7460	AACCUUUC A CUUUUUGU	1651	ACAAAAAG GGCTAGCTACAACGA GAAAGGTT	3353
7467	CACUUUUU G UUUGUUUU	1652	AAAACAAA GGCTAGCTACAACGA AAAAAGTG	3354
7471	UUUUGUUU G UUUUACCU	1653	AGGTAAAA GGCTAGCTACAACGA AAACAAAA	3355
7476	UUUGUUUU A CCUAUUUC	1654	GAAATAGG GGCTAGCTACAACGA AAAACAAA	3356
7480	UUUUACCU A UUUCACAA	1.655	TTGTGAAA GGCTAGCTACAACGA AGGTAAAA	3357
7485	CCUAUUUC A CAACUGUG	1656	CACAGTTG GGCTAGCTACAACGA GAAATAGG	3358
7488	AUUUCACA A CUGUGUAA	1657	TTACACAG GGCTAGCTACAACGA TGTGAAAT	3359
7491	UCACAACU G UGUAAAUU	1658	AATTTACA GGCTAGCTACAACGA AGTTGTGA	3360
7493	ACAACUGU G UAAAUUGC	1659	GCAATTTA GGCTAGCTACAACGA ACAGTTGT	3361
7497	CUGUGUAA A UUGCCAAU	1660	ATTGGCAA GGCTAGCTACAACGA TTACACAG	3362

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7500	UGUAAAUU G CCAAUAAU	1661	ATTATTGG GGCTAGCTACAACGA AATTTACA	3363
7504	AAUUGCCA A UAAUUCCU	1662	AGGAATTA GGCTAGCTACAACGA TGGCAATT	3364
7507	UGCCAAUA A UUCCUGUC	1663	GACAGGAA GGCTAGCTACAACGA TATTGGCA	3365
7513	UAAUUCCU G UCCAUGAA	1664	TTCATGGA GGCTAGCTACAACGA AGGAATTA	3366
7517	UCCUGUCC A UGAAAAUG	1665	CATTTCA GGCTAGCTACAACGA GGACAGGA	3367
7523	CCAUGAAA A UGCAAAUU	1666	AATTTGCA GGCTAGCTACAACGA TTTCATGG	3368
7525	AUGAAAAU G CAAAUUAU	1667	ATAATTTG GGCTAGCTACAACGA ATTTTCAT	3369
7529	AAAUGCAA A UUAUCCAG	1668	CTGGATAA GGCTAGCTACAACGA TTGCATTT	3370
7532	UGCAAAUU A UCCAGUGU	1669	ACACTGGA GGCTAGCTACAACGA AATTTGCA	3371
7537	AUUAUCCA G UGUAGAUA	1670	TATCTACA GGCTAGCTACAACGA TGGATAAT	3372
7539	UAUCCAGU G UAGAUAUA	1671	TATATCTA GGCTAGCTACAACGA ACTGGATA	3373
7543	CAGUGUAG A UAUAUUUG	1672	CAAATATA GGCTAGCTACAACGA CTACACTG	3374
7545	GUGUAGAU A UAUUUGAC	1673	GTCAAATA GGCTAGCTACAACGA ATCTACAC	3375
7547	GUAGAUAU A UUUGACCA	1674	TGGTCAAA GGCTAGCTACAACGA ATATCTAC	3376
7552	UAUAUUUG A CCAUCACC	1675	GGTGATGG GGCTAGCTACAACGA CAAATATA	3377
7555	AUUUGACC A UCACCCUA	1676	TAGGGTGA GGCTAGCTACAACGA GGTCAAAT	3378
7558	UGACCAUC A CCCUAUGG	1677	CCATAGGG GGCTAGCTACAACGA GATGGTCA	3379
7563	AUCACCCU A UGGAUAUU	1678	AATATCCA GGCTAGCTACAACGA AGGGTGAT	3380
7567	CCCUAUGG A UAUUGGCU	1679	AGCCAATA GGCTAGCTACAACGA CCATAGGG	3381
7569	CUAUGGAU A UUGGCUAG	1680	CTAGCCAA GGCTAGCTACAACGA ATCCATAG	3382
7573	GGAUAUUG G CUAGUUUU	1681	AAAACTAG GGCTAGCTACAACGA CAATATCC	3383
7577	AUUGGCUA G UUUUGCCU	1682	AGGCAAAA GGCTAGCTACAACGA TAGCCAAT	3384
7582	CUAGUUUU G CCUUUAUU	1683	AATAAAGG GGCTAGCTACAACGA AAAACTAG	3385
7588	UUGCCUUU A UUAAGCAA	1684	TTGCTTAA GGCTAGCTACAACGA AAAGGCAA	3386
7593	UUUAUUAA G CAAAUUCA	1685	TGAATTTG GGCTAGCTACAACGA TTAATAAA	3387
7597	UUAAGCAA A UUCAUUUC	1686	GAAATGAA GGCTAGCTACAACGA TTGCTTAA	3388
7601	GCAAAUUC A UUUCAGCC	1687	GGCTGAAA GGCTAGCTACAACGA GAATTTGC	3389
7607	UCAUUUCA G CCUGAAUG	1688	CATTCAGG GGCTAGCTACAACGA TGAAATGA	3390
7613	CAGCCUGA A UGUCUGCC	1689	GGCAGACA GGCTAGCTACAACGA TCAGGCTG	3391
7615	GCCUGAAU G UCUGCCUA	1690	TAGGCAGA GGCTAGCTACAACGA ATTCAGGC	3392
7619	GAAUGUCU G CCUAUAUA	1691	TATATAGG GGCTAGCTACAACGA AGACATTC	3393
7623	GUCUGCCU A UAUAUUCU	1692	AGAATATA GGCTAGCTACAACGA AGGCAGAC	3394
7625	CUGCCUAU A UAUUCUCU	1693	AGAGAATA GGCTAGCTACAACGA ATAGGCAG	3395
7627	GCCUAUAU A UUCUCUGC	1694	GCAGAGAA GGCTAGCTACAACGA ATATAGGC	3396
7634	UAUUCUCU G CUCUUUGU	1695	ACAAAGAG GGCTAGCTACAACGA AGAGAATA	3397
7641	UGCUCUUU G UAUUCUCC	1696	GGAGAATA GGCTAGCTACAACGA AAAGAGCA	3398
7643	CUCUUUGU A UUCUCCUU	1697	AAGGAGAA GGCTAGCTACAACGA ACAAAGAG	3399
7655	UCCUUUGA A CCCGUUAA	1698	TTAACGGG GGCTAGCTACAACGA TCAAAGGA	3400
7659	UUGAACCC G UUAAAACA	1699	TGTTTTAA GGCTAGCTACAACGA GGGTTCAA	3401
7665	CCGUUAAA A CAUCCUGU	1700	ACAGGATG GGCTAGCTACAACGA TTTAACGG	3402
7667	GUUAAAAC A UCCUGUGG	1701	CCACAGGA GGCTAGCTACAACGA GTTTTAAC	3403
7672	AACAUCCU G UGGCACUC	1702	GAGTGCCA GGCTAGCTACAACGA AGGATGTT	3404

Input Sequence = HSFLT. Cut Site = R/Y
Arm Length = 8. Core Sequence = GGCTAGCTACAACGA
HSFLT (Human flt mRNA for receptor-related tyrosine kinase.; Acc# X51602; 7680 bp)

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Table VI: Human KDR DNAzyme and Substrate sequence

No No 14 GUCCCGGG A CCCGGGAC 4305 TCCCGGGG GGCTAGCTACAACGA CCCGGGAC 4691 25 CCGGGAGA G CGGUCAGU 3406 ACTGACCG GGCTAGCTACAACGA CCCCCGGA 4692 28 GGGCGCAG GUCAGUGU 3407 CACACAG GGCTAGCTACAACGA CGCTCCCC 4693 32 AGCGGUCAG GUUGUGGU 3409 CACACACA GGCTAGCTACAACGA ACTGACCC 4695 36 GUCAGUGU GUUGUUGCU 3410 ACGGACCA GGCTAGCTACAACGA ACTGACC 4696 36 GUUGUUGCU 3411 CGCAGCACA GGCTAGCTACAACGA ACTGACCA 4697 42 GUUGUGGU G CUCCCUUCUCU 3412 AAACGCAC GGCTAGCTACAACGA ACCACAC 4698 45 DUGCCUGC G CUUCCCUCUCUCUT 3414 AGAGGAAG GGCTAGCTACAACGA AGAGCAAA 4700 60 CUUCGCUC G CCCGGCC 3416 GCCCGGCG GGCTAGCTACAACGA AGAGCAAA 4701 61 CUUCGCUC G CCCGGCC 3416 ACCCGGCG GGCTAGCTACAACGA AGAGCAAA 4702 62 CUGCCUGC C CCCGCCGC 3416 ACCCGGCG GGCTAGCTACAACGA AGAGCAAA 4703 62 CUGCCGGC C CAUCACUU </th <th></th> <th></th> <th></th> <th></th> <th>r</th>					r
14 GUCCCGGG A CCCCGGGA 3405 TCCCGGGG GGCTAGCTACAACGA CCCGGGAC 4691 25 COGGGAGG G CGGUCAGU 3406 ANTORACG GGCTAGCTACAACGA CTCCCCGG 4692 28 GGAGAGG G LOGUGUG 3407 CACACTGA GGCTAGCTACAACGA CGCTCTCC 4693 32 AGCGUCAG UGUGUGUG 3409 CACACCA GGCTAGCTACAACGA ACGACCA 4696 34 CGGUCAGU G UGUGUGC 3410 ACGACCA GGCTAGCTACAACGA ACCACCAC 4696 39 AGUGUGUG G UGUGUUU 3412 AAACGCAG GGCTAGCTACAACGA ACCACCC 4698 42 GUGUGGUC G CUGCGUUU 3412 AAACGCAG GGCTAGCTACAACGA ACGACACA 4699 45 UGUCCUCU G CUGCGCC 3415 GGCGGAGG GGCTAGCTACAACGA AGGGACCA 4699 47 GUCCGCGC G CUUCCCCU 3414 AGGAGAA GGCTAGCTACAACGA AGGGACCA 4699 48 GUCCGCGC G CUUCCCU 3415 GGCGCAGG GGCTAGCTACAACGA AGGGACA 4702 56 UUUCCUCU G CCCCGGGC 3416 GCCCGGGC GGCTAGCTACAACGA AGGGAGA 4702 62 CUGCCUGC G CAUCACUU 3418 AAGTGATCAACGA AGGCACA CGGCGCCA 4704 69 OCCCGGGC A UCACCUU 3419 AAGTGATCAACGA AGGCACA GGCGCACA 4704 70 JUCCCUU G CCCCGCCC 3421 AAGTGATCAACGA AGGCACA GCGCCCCCCCCCCCCCCC	Pos	Substrate	Seq ID	DNAzyme	Seq ID
25			No		No
28 GGAÇAGCG G UCAGUGUG 3407 CACACCA GGCTAGCTACAACGA CGCTCCC 4693 32 AGCGGUCA G UGUGGUCG 3409 CACACCA GGCTAGCTACAACGA TCAACCGA 4694 34 CGGCAGCA GUGUGGUCG 3409 CGACCACA GGCTAGCTACAACGA ACCTGAC 4698 35 GUCAGUGU 3410 AGCGACCA GGCTAGCTACAACGA ACACTGAC 4696 39 AGUGUGU 3411 CGCAGCGA GGCTAGCTACAACGA ACACTAC 4698 45 UGUGUGU 3412 AAACGCAG GGCTACACAACGA ACACCAC 4698 45 UGGUGGU GUUCCUCU 3413 AGGAACG GGCTAGCTACAACGA ACGACACA 4699 47 GUCCUCUCU GCCCGCGC 3414 AGAGGAAC GGCCAGG 4701 60 CUUCUCUU GCCCGCGC 3415 GCCCGGGG GGCTAGCTACAACGA AGGCACA 4702 61 CUUCUCUU GCCGGGGC 3416 GCCCGGGG GGCTAGCTACAACGA AGGCACA 4702 62 CUUGCCUG G CGCCGC 3417 ATCCCGG GGCTAGCTACAACGA AGCGCACA 4704 61 CUCCUCUG G CACCCCCGC 3420 CCGGGCAG GGCTAACTACAACGA AGCACGCACA <td< td=""><td>14</td><td>GUCCCGGG A CCCCGGGA</td><td>3405</td><td>TCCCGGGG GGCTAGCTACAACGA CCCGGGAC</td><td>4691</td></td<>	14	GUCCCGGG A CCCCGGGA	3405	TCCCGGGG GGCTAGCTACAACGA CCCGGGAC	4691
32 AGCGUCAG G UGUGUGUG 3408 ACCACAG GGTAGCTACAACGA TGACCGCT 4694 34 CGGUCAGU G UGUGGUCG 3410 AGCCACA GGTTAGCTACAACGA ACTGACCTGA 4695 36 GUCAGUGU G UGUCGCU 3410 AGCGACA GGTTAGCTACAACGA ACTGAC (4695 39 AGUGUGU G UCGCUGCG 3411 CGCAGCGA GGCTAGCTACAACGA CACACCAC 4697 42 GUGUGGU G CUUUCCU 3412 AAACGCA GGCTAGCTACAACGA AGCGACCA 4698 45 UGGUCGU G CUUUCCU 3414 AGAGGAAA GGCTAGCTACAACGA AGCGACCA 4698 47 GUCGCUG G CUUUCCUU 3414 AGAGGAAA GGCTAGCTACAACGA AGCGACA 4700 56 UUUCCUCU G CCGGGCC 3415 GCCGGGC GGCTAGCTACAACGA AGCGACA 4701 60 CUUCGCUC G CCGGGCCAC 3417 ATCCCGG GGCTAGCTACAACGA AGCGACA 4702 61 UUCCCUCC G CCGCGCCAC 3419 ACAGTAGCTACAACGA AGCGACACA 4704 62 CUGCCGGC A UCCACUUC 3420 CCGCGAACA GGCTAGCTACAACGA AGTGACA 4706 72 CGGCCAGC 3421 GCAGCGCA GGCTAGCTACAACGA ACTGACACA 4706 80	25	CCGGGAGA G CGGUCAGU	3406	ACTGACCG GGCTAGCTACAACGA TCTCCCGG	4692
34 CGGUCAGU G UGUGGUCG 3409 CGACCACA GGCTAGCTACAACGA ACTGAACG 4695 36 GUCAGUGU G UGUGCGC 3410 AGGACCA GGCTAGCTACAACGA ACACTGAC 4696 39 AGUGUGUG G UGCGUCGC 3411 CGCAGCGA GGCTAGCTACAACGA ACACACAC 4697 42 GUGGUGC G CGUUUCCU 3412 AAAGCAG GGCTAGCTACAACGA AGCACACA 4698 45 UGUCGUG G CGUUUCCU 3414 AGGAAACG GGCTAGCTACAACGA AGCACACA 4699 47 GUCGUGC G CUUUCCU 3414 AGGAAAC GGCCAAGCAACAACAACAA 4700 60 CUUCGUU G CUUGCCC 3415 GGCGCAGG GGCTAGCTACAACGA AGGCAACAA 4701 60 CUUCGCU G CCGGGCC 3416 GCCCGGGG GGCTAGCTACAACGA AGCAGACAACAACAACAACAACAACAACAACAACAACAAC	28	GGAGAGCG G UCAGUGUG	3407	CACACTGA GGCTAGCTACAACGA CGCTCTCC	4693
36 GUCAGUGU G UGGUCGU 3410 AGCGACCA GGCTAGCTACAACGA ACACTGAC 4698 34009000 G UCGUCGU 3411 AAACGCAG GGCTAGCTACAACGA CACACACT 4698 450000000 4112 AAACGCAG GGCTAGCTACAACGA CACCACACT 4698 450000000 4112 AAACGCAG GGCTAGCTACAACGA CACCACAC 4698 4500000000 4112 AAACGCAG GGCTAGCTACAACGA CACCACAC 4698 4500000000000000000000000000000000000	32	AGCGGUCA G UGUGUGGU	3408	ACCACACA GGCTAGCTACAACGA TGACCGCT	4694
39 AGUGUGUG G UCGCUGCG 3411 CGCAGCGA GGCTAGCTACAACGA CACACACA 4697 42 GUGUGGUG C CUGCGUUU 3412 AAACGCAG GGCTAGCTACAACGA GACCACACA 4698 45 UGGUCGU G CGUUUCCU 3413 AGGAACAG GGCTAGCTACAACGA GACCACACA 4699 47 GUCGCUGC G CUUUCCUU 3414 AGAGAAAA GGCTAGCTACAACGA AGAGCAACA 4699 56 UUUCCUCU G CCCGGGC 3415 GGCGGGG GGCTAGCTACAACGA AGAGCAACA 4700 60 CUCUGCCU G CCGGGGCAU 3417 ATGCCGG GGCTAGCTACAACGA AGGCAGGAG 4703 67 UGCCCGGG G CAUCACUU 3418 AAGTGATG GGCTAGCTACAACGA CCGGCGCA 4704 69 OCCCGGGC G CAUCACUU 3419 GCAGGGGA GGCTAGCTACAACGA GCCGGCGC 4706 69 OCCCGGGC G CUUGCGG 3420 CGCGCAGA GGCTAGCTACAACGA GCCCGGCGC 4706 76 JUCACUUGC G GCCCGAA 3421 CCGGCAGG GGCTAGCTACAACGA GCAACTGA 4707 78 UCACUUGC G CCCCAAA 3422 CTGCGGGG GGCTAGCTACAACGA GCACACTGA 4708 80 ACUUGCG G CCCGCAAA 3422 CTGCGGGG GGCTAGCTACAACGA GCACACGA 4710	34	CGGUCAGU G UGUGGUCG	3409	CGACCACA GGCTAGCTACAACGA ACTGACCG	4695
42 GUGUGGUC G CUGCGUUU 3412 AAACGCAG GGCTAGCTACAACGA GACCAACC 4698 45 UGGUCGCU G CGUUUCCU 3413 AGGARACG GGCTAGCTACAACGA ACCGAACCA 4699 47 GUCGCUGC G UUUCCUCU 3414 AGAGARAC GGCTAGCTACAACGA ACCGAACCA 4699 47 GUCGCUG G CUGCGCC 3415 GGCGCAG GGCTAGCTACAACGA ACCGAACCA 4700 56 UUUCCUCU G CCUGCGCC 3415 GGCGCAG GGCTAGCTACAACGA AGGCAAAA 4701 60 CUCUGCCU G CCGCGGCC 3416 GCCCGGCG GGCTAGCTACAACGA AGGCAAAA 4701 61 CUCUGCCU G CCGCGGCC 3416 GCCCGGCG GGCTAGCTACAACGA AGGCAAAA 4701 62 CUGCCUGC G CCGCGGCC 3417 ATGCCCGG GGCTAGCTACAACGA AGGCAAAA 4702 63 CUGCCUGC G CAUCACUU 3418 AAGGAAG GGCTAGCTACAACGA CCGGCGCA 4704 64 CGCCGGCG C AUCACUUG 3418 AAGGAAG GGCTAGCTACAACGA CCCGGCGCA 4704 65 CGCGGCGC A CUACUUGC 3419 GCAAGTGA GGCTAGCTACAACGA CCCGGCGCA 4706 67 UCCGCGCG C AUCACUUG 3419 GCAAGTGA GGCTAGCTACAACGA CACGGCGCA 4706 68 CGCGGCAG A CUACUUGC 3420 CGGGCAAG GGCTAGCTACAACGA GATGCCC 4706 77 AUCACUUGC G CGCCCCCG 3421 CGCGGCCG GGCTAGCTACAACGA AGTGATG 4707 78 UCACUUGCG G CCGCCCGC 3421 CTCCGGCG GGCTAGCTACAACGA AAGTGATG 4708 80 ACUUGCGC G CGCGCCAG 3422 CTCCGGCG GGCTAGCTACAACGA GCGCAAGT 4709 81 GAAAGUC G CCCGCAGA 3422 CTCCGGCG GGCTAGCTACAACGA GCGCACAT 4709 82 GAAAGUC G UCCGUCGA 3425 CTCCCAGA GGCTAGCTACAACGA GCGCCACA 4710 83 UCCGCCC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA TTCCTGCG 4711 94 GAAAGUCC G UCCGCAGA 3425 CTCCCAGA GGCTAGCTACAACGA TTCCTGCG 4711 95 UCCGUCUG G CAGCCUCG 3422 CTCCCAGA GGCTAGCTACAACGA TTCCTGCG 4711 100 CCUGGCA A UAUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA TTCCCAGAC 4711 101 GCCUGGAU A UCCUCUC 3430 GGCAGCTACAACGA TTCCAAGCG ACCGCCA 4711 110 GCCUGGAU A UCCUCUC 3430 GGCAGCTACAACGA ATCCAAGCA TTCCAGGC 4711 111 GCCUGGAU A UCCUCUC 3430 GGCGCGG GGCTAGCTACAACGA ATCCAAGCA 4711 112 CCUCUCCU A CCGCCAC 3431 GGTGCGG GGCTAGCTACAACGA ACGGACGA 4711 113 CCGCAGCA C CCCCCGCA 3431 GGTGCGG GGCTAGCTACAACGA ACGGACGA 4712 114 ACCGCAGA A CCCCCCCGA 3431 GGTGCGG GGCTAGCTACAACGA AGGAAGGA 4712 115 CCGCAGCA C CCCCCAGA 3431 GGCGCGG GGCTAGCTACAACGA AGGGACGA 4712 116 CUCCCUC G CACCCCC 3434 GGCGCGG GGCTAGCTACAACGA AGGGACGA 4712 117 CUACCCCC C CCGCCAG 3441 GCCCCCGGGG GC	36	GUCAGUGU G UGGUCGCU	3410	AGCGACCA GGCTAGCTACAACGA ACACTGAC	4696
45 UGGUCGCU G CGUUUCCU 3413 AGGAAACG GGCTAGCTACAACGA AGCGACCA 4699 47 GUCGUGC G UUUCCUCU 3414 AGAGGAA GGCTAGCTACAACGA AGAGCGAC 4700 56 UUUCCUCU G CCUGCGCC 3415 GGCGCAGG GGCTAGCTACAACGA AGAGGAAC 4700 56 UUUCCUCU G CCUGGGCC 3415 GGCGCAGG GGCTAGCTACAACGA AGAGGAAA 4701 60 CUCUGCCU G CGCCGGGC 3416 GCCCGGCG GGCTAGCTACAACGA AGAGCAGA 4702 61 CUCUGCCU G CGCGGGCAU 3417 ATGCCCGG GGCTAGCTACAACGA AGAGCAGA 4702 62 CUGCCUGC G CAGCCACU 3418 AAGTGATG GGCTAGCTACAACGA GCAGGGCAG 4704 63 CGCCGGGC A UCACUUGC 3419 GCAAAGTGA GGCTAGCTACAACGA GCAGGGCA 4704 64 CGCCGGGC A UCACUUGC 3419 GCAAAGTGA GGCTAGCTACAACGA GCCCGGGC A 4706 65 CGCCGGGC A UCACUUGC 3419 GCAAAGTGA GGCTAGCTACAACGA GATGCCCG 4706 67 CGCCGGGC A UCACUUGC 3420 CGCGCAG GGCTAGCTACAACGA GATGCCCG 4706 68 CGCCGGGC A UCACUUGC 3421 GCGGCGC GGCTAGCTACAACGA AAGTGATG 4707 68 UCACUUGC G CGCCGCAG 3422 CTGCGGCG GGCTAGCTACAACGA AAGTGAATG 4707 78 UCACUUGC G CGCCGCAG 3422 CTGCGGCG GGCTAGCTACAACGA GCACAAGT 4709 80 ACUUGCGC G CCAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GCGCAAA 4708 80 ACUUGCGC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GCGCAAA 4708 81 UGCGCGCC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GGCCGCC 4711 81 QGCGCGCC G CAGAAAGU 3425 CAAACGAGA GCCTAGCTACAACGA GGCCTAC 4712 81 QGCGCCC G CAGAAAGU 3426 CTGCCAGA GCCTAGCTACAACGA GGACTAC 4712 82 QUCUGGCA G CCUGGAUA 3427 CCAGGCT GGCTAGCTACAACGA CGAACGA 4711 81 QGCUCUGC G CAGCCUG 3427 CCAGGCT GGCTAGCTACAACGA CAGACGA 4711 81 QCCUCUCU G CAGCCUG 3427 CCAGGCT GGCTAGCTACAACGA CAGACGA 4711 81 QCCUCCUCU A CCGGCACC 3431 GGTGCCGG GGCTAGCTACAACGA CCAGGCT 4712 81 QUCUGCCA G CCCCGGA 3431 GGTGCCGG GGCTAGCTACAACGA ACCCAGC 4716 81 QCCUCCUC A CCGCCCC 3431 GCTGCGGG GGCTAGCTACAACGA ATCCAGGC 4716 81 QCCUCCUC A CCGCCCC 3431 GCTGCGGG GGCTAGCTACAACGA CCGGGCG 4712 81 ACCCCCCC G CAGACCC 3431 GCTGCGGG GGCTAGCTACAACGA CCGGGCGG 4712 81 ACCCCCCC G CAGACCC 3431 GCTGCGGG GGCTAGCTACAACGA CCGGGGGT 4712 81 ACCCCCCC G CAGCCCCC 3431 GCTGCGGG GGCTAGCTACAACGA CGGGGGG 4712 81 ACCCCCCC G CAGCCCCC 3441 GCCGCGG GGCTAGCTACAACGA CGGCGGG 4712 81 ACCCCCCC G CAGCCCCC 3441 GCCCCCC GGCTAGCTACAACGA C	39	AGUGUGUG G UCGCUGCG	3411	CGCAGCGA GGCTAGCTACAACGA CACACACT	4697
47 GUCSCUGC G UUUCCUCU 3414 AGAGGAAA GGCTAGCTACAACGA GCAGCGAC 4700 56 UUUCCUCU G CCUGGGCC 3415 GGCGCGG GGCTAGCTACAACGA AGAGGAAA 4701 60 CUUGCUC G CGCGGGG 3416 GCCCGGCG GGCTAGCTACAACGA AGAGGAAA 4702 62 CUGCCUGC G CGGGGCAU 3417 ATGCCGGG GGCTAGCTACAACGA AGAGGAAA 4703 67 UGCGCCGG G CAUCACUU 3418 AAGTGATG GGCTAGCTACAACGA CGAGGCAG 4703 67 UGCGCGGG G CAUCACUU 3418 AAGTGATG GGCTAGCTACAACGA CCGGCGCA 4704 69 CGCCGGGG A UCACUUG 3419 GCAAGTGA GGCTAGCTACAACGA CCGGCGC 4706 70 CGCCGGGC A UCACUUG 3419 GCAAGTGA GGCTAGCTACAACGA CCGGCGCG 4705 71 CAUCACUUG G GCGCCCC 3421 GCGGCCAG GGCTAGCTACAACGA CATGCCCC 4706 72 CGGGCAUC A CUUGCGC 3421 GCGGCCAG GGCTAGCTACAACGA AAGTGATG 4707 73 UCACUUGC G CGCGCAG 3422 CTGCGGCG GGCTAGCTACAACGA AAGTGATG 4707 74 UCACUUGC G CGCGCAG 3422 CTGCGGC GGCTAGCTACAACGA CGAAGTGA 4708 75 UCACUUGC G CGCGCAG 3422 TTCTGCGG GGCTAGCTACAACGA GCAAGTGA 4708 76 ACUUGCG G CGCGCAGA 3423 TTCTGCGG GGCTAGCTACAACGA GCACAGTA 4709 77 CGCCGGAA G UCCGUCUG 3425 CACACGAG GGCTAGCTACAACGA GGCCGCAACT 4709 78 UCCGUCUG C CAGCAAGU 3426 CTGCCAGA GGCTAGCTACAACGA GGCCGCCA 4710 90 CCGCCAGA G UCCGUCUG 3425 CACACGGA GGCTAGCTACAACGA GGCCAACT 4710 91 UCCGUCUG C CAGCCUGG 3427 CCCAGCCT GGCTAGCTACAACGA GGCCAACT 4711 104 GAAAGUCC G UCCGGCAG 3428 TATCCAGG GGCTAGCTACAACGA GGCAACGA 4711 105 CCGCUGGA G CCUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA CCAACGGA 4711 106 CCUCGGAU A UCCCUCUC 3429 AGAGGATA GGCTAGCTACAACGA TCCCAGAC 4711 110 GCCUGGAU A UCCCUCUC 3420 GGAGGAGG GGCTAGCTACAACGA TCCCAGAC 4711 111 GCCUGAGA G CCCUGGAUA 3422 TGCGGGTG GGCTAGCTACAACGA CCAGGCTG 4711 110 GCCUGAGA A UCCCUCUC 3430 GGAGGAGG GGCTAGCTACAACGA CCAGGCTG 4711 111 GCCUGAGA G CCCCUGA 3431 GGTGCCG GGCTAGCTACAACGA CCAGGCTG 4711 112 UCCUACCG G CACCCGCA 3431 GGTGCGG GCTAGCTACAACGA CCGGGCG 4716 113 CCGCAGAC G CCCGCGA 3431 GGTGCGG GCTAGCTACAACGA CCGGGCG 4716 114 CCUAACCG G CACCCGCG 3431 GCTGCGGG GCTAGCTACAACGA CGGGCGG 4716 115 CCGCGAAC G CCCGCGCG 3441 GCGCGCG GCTAGCTACAACGA CGGGCGG 4716 116 CGCCGCAC G CGGCGCG 3441 GCGCGCG GCTAGCTACAACGA GGCGGCG 4722 117 ACCCCCCC G CGGCGGC 3441 GCGCGCG GCTAGCTACAACGA	42	GUGUGGUC G CUGCGUUU	3412	AAACGCAG GGCTAGCTACAACGA GACCACAC	4698
DUUCCUCU G CCUGCGCC 3415 GGCGCAGG GGCTAGCTACAACGA AGAGGAAA 4701	45	UGGUCGCU G CGUUUCCU	3413	AGGAAACG GGCTAGCTACAACGA AGCGACCA	4699
60 CUCUGCCU G CGCGGGC 3416 GCCCGGCG GGTAGCTACAACGA AGGCAGA 4702 62 CUGCCUGC G CAGGCAU 3417 ATGCCCGG GGTAGCTACAACGA GCAGGCAU 4703 67 UGCGCCGG G CALCACUU 3418 AAGTGATG GGCTAGCTACAACGA GCGGCGC 4705 69 CGCCGGC A UACUUGC 3419 GCAAGTGA GGCTAGCTACAACGA GCCCGGCG 4706 72 CGGGCAU A UUGCGCG 3421 GCGGCGCG GGTAGCTACAACGA GACAGTGA 4707 78 UCACUUGC G CGCGCAG 3422 CTGCGGCG GGCTAGCTACAACGA GCAGCAGA 4709 80 ACUUGCG C CGCAAAA 3423 TTCTGCG GGCTAGCTACAACGA GCCAGCAA 4710 90 CGCAGAAA G UCCGGCAG 3425 CAGACAGA GGCTAGCTACAACGA GGCGCCC 4711 90 UCCGUCG G CAGCCUGG 3426 CTGCCAGA GGCTAGCTACAACGA CAGCAGCA 4711 100 GCGUGGA	47	anceanec e minacaran	3414	AGAGGAAA GGCTAGCTACAACGA GCAGCGAC	4700
62 CUGCCUGC G CCGGGCAU 3417 ATGCCCGG GGCTAGCTACAACGA GCAGGCAG 4704 67 UGGCCGGG G CAUCACUU 3418 AAGTGATG GGCTAGCTACAACGA CCGGCGCA 4704 69 CGCCGGGC A UCACUUGC 3419 GCAAGTGA GGCTAGCTACAACGA GCCGGCGC 4705 76 JAUCACUU G GCGCCCC 3421 GCGGCAG GGCTAGCTACAACGA AGTGCCC 4706 77 JAUCACUU G GCGCCGC 3421 GCGGCGCG GGCTAGCTACAACGA AAGTGATG 4707 78 UCACUUGC G CGCCGCAG 3422 CTGCGGCG GGCTAGCTACAACGA AAGTGATG 4707 78 UCACUUGC G CGCCGCAG 3422 TTCTGCGG GGCTAGCTACAACGA AAGTGATG 4707 78 UCACUUGCG G CGCGCAGA 3423 TTCTGCGG GGCTAGCTACAACGA GCAAGTGA 4708 80 ACUUGCGC G CGCAGAA 3423 TTCTGCGG GGCTACAACGA GCGCGCCA 4710 90 CGCAGAAA G UCCUCUG 3425 CAGACGGA GGCTAGCTACAACGA GGCGCGCA 4710 91 GAAAGUCC G UCUGGCAG 3426 CTGCCAGAA GGCTAGCTACAACGA GGCCGCACA 4710 92 UCCGUCUG G CAGCAUGA 3428 CAGACGGA GGCTAGCTACAACGA GGCCGCCA 4711 102 CUCUGCU G CAGCCUGG 3427 CCAGGCTG GGCTACAACGA CAGACGA TTCTTCTGCG 4711 103 CCGCUGGA G AUUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA TTCCAGG GCCGCGCA 4710 104 GCCUGGAU A UCCUCUC 3430 GGAGAGGA GGCTAGCTACAACGA TCCAAGCA 4714 105 CCUCUCCU A CCGGCACC 3431 GGTGCCGGA GGCTACCAACGA ACCAGACGA 4716 110 GCCUGGAU A UCCUCUC 3430 GGAGAGGA GGCTAGCTACAACGA ACCAGACGA 4716 120 CCUCUCCU A CCGGCACC 3431 GGTGCCGGG GGCTACCTACAACGA ACGACGA 4716 121 UCCUACCG G CACCCGCA 3432 TCCGGGG GGCTAGCTACAACGA AGGAAGAG 4716 122 CCUCUCCU A CCGGCACC 3431 GGTGCCGG GGCTACCTACAACGA AGGAAGAG 4718 123 CCGCACCG C CAGACGCC 3431 GGTGCCGG GGCTACCTACAACGA AGGAAGAG 4718 124 UCCUACCG C CACCCCCA 3432 TCCGGGGG GGCTACCTACAACGA GGGTAGGA 4719 130 CGGCACC G CACCCCCA 3433 TCCGGGGG GGCTACCTACAACGA GGGCGTAG 4719 131 CGGCCGCG C CCCCGCC 3437 GGCGGCT GGCTACCTACAACGA GGGCGTAG 4719 132 CGCCCCG C CAGACCCC 3437 GGCGGCT GGCTACCTACAACGA GGGCGTAG 4712 134 CCCCCCCC G CAGACCCC 3437 GGCGGCC GGCTACCTACAACGA CCGCCC 4720 135 ACCCCCC G CAGCCCC 3437 GGCGGCC GGCTACCTACAACGA CCGGCC A720 136 CCCCCCCCC GCCCCCCCCCC 3437 GCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	56	UUUCCUCU G CCUGCGCC	3415	GGCGCAGG GGCTAGCTACAACGA AGAGGAAA	4701
67 UGCGCGGG G CAUCACUU 3418 AAGTGATG GGCTACCTACAACGA CCGGCGCA 4704 69 CGCCGGGGC A UCACUUGC 3419 GCAAGTGA GGCTAGCTACAACGA GCCGGGG 4705 72 CGGGCAUC A CUUGCGCG 3420 CGCGCAGG GGCTAGCTACAACGA GATGCCC 4705 74 AUCACUUG G GCGCGCG 3421 CGCGCAGG GGCTAGCTACAACGA GATGCCC 4706 75 UCACUUGC G CGCCGCAG 3421 CGGGCGCG GGCTAGCTACAACGA GATGCCC 4707 78 UCACUUGC G CGCGCAGA 3422 CTGCGGCG GGCTAGCTACAACGA GCAAGTGA 4707 78 UCACUUGC G CGCGCAGA 3423 TTCTGCGG GGCTAGCTACAACGA GCGCAAGT 4709 80 ACUUGCGC G CGCAGAAA 3423 TTCTGCGG GGCTAGCTACAACGA GCGCAAGT 4709 81 UGCCGCC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GCGCCAAGT 4710 90 CGCAGAAA G UCCGUCUG 3425 CAGACGGA GGCTAGCTACAACGA TTCTTGCG 4711 94 GAAAGUC G UCUGCAG 3426 CTGCCAGA GGCTAGCTACAACGA TTCTTGCG 4711 95 UCCGUCGG C CAGCCAGA 3427 CCAGGCTG GGCTAGCTACAACGA CAGACTTTC 4712 96 UCCGUCGG C CAGCCUGG 3427 CCAGGCTG GGCTAGCTACAACGA CAGACCGA 4714 102 GUCUGGCA G CCUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA CAGACCGA 4714 103 CGCUCGGA UAUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA CCAGCCTG 4715 110 GCCUGCU A CCGGCACC 3431 GGTGCCGG GGCTAGCTACAACGA CCAGCCTG 4716 120 CCUCUCCU A CCGGCACC 3431 GGTGCCGG GGCTAGCTACAACGA ACGACACC 4716 120 CCUCUCCU A CCGGCACC 3431 TCTGCGGG GGCTAGCTACAACGA AGGACGG 4716 121 UCCUACCG G CACCGCCA 3432 TCCGGGGT GGCTAGCTACAACGA AGGACGG 4710 130 CGGCACC G CAGACGCC 3433 TCTGCGGG GGCTAGCTACAACGA CGCGGTAG 4711 131 CGGCACCC G CAGACGCC 3434 GGCGTCTG GGCTAGCTACAACGA CCGGTAGG 4710 134 ACCCGCAG A CCCCCCAGA 3433 TCTGCGGG GGCTAGCTACAACGA CCGGTAGG 4712 135 CCGCACAC G CCCCCCCG 3437 GCGGGCG GGCTAGCTACAACGA GCCGGTAG 4711 136 CCGCACAC G CCCCCCCG 3437 GCGGGCG GGCTAGCTACAACGA GCCGGTAG 4712 137 CCCCCCCC G CAGACCCC 3437 GCGGGCG GGCTAGCTACAACGA GCCGGCG 4722 145 CCCCCCCC G CAGACCCC 3437 GCGGGCG GGCTAGCTACAACGA GGGCCGG 4722 145 CCCCCCCC G CGCCCC 3437 GCGGGCG GGCTAGCTACAACGA GGGCCGG 4722 145 CCCCCCCC G CCCCCCCC 3437 GCGGGCG GGCTAGCTACAACGA CGGGCGG 4722 145 CCCCCCCC G CGCCCC 3440 GGCGGCG GGCTAGCTACAACGA CGGGCGC 4722 146 CCCCCCCC G CGCCCCCCCC 3440 GCCGCCC GGCTAGCTACAACGA CGGGCCC 4722 147 CCCCCCCCC GCCCC 3440 GCCCCCCCCCC GGCTAGCT	60	CUCUGCCU G CGCCGGGC	3416	GCCCGGCG GGCTAGCTACAACGA AGGCAGAG	4702
69 CGCCGGGC A UCACUUGC 3419 GCAAGTGA GGCTAGCTACAACGA GCCCGGCG 4705 72 CGGGCAUU A CUUGCGCG 3420 CGCGCAG GCTAGCTACAACGA GATGCCCG 4706 76 JAUCACUU G CGCCGCAG 3421 GCGGCGC GGCTAGCTACAACGA AGATGAT 4708 78 UCACUUGC G CGCGCAG 3422 CTGCGGCG GGCTAGCTACAACGA AGCGGCGC 4708 80 ACUUGCGC G CGGCAGAA 3423 TTCTGCGG GGCTAGCTACACACGA AGCGCAAGT 4709 83 UGCGCCC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA AGCGCGCA 4711 90 CGCAGAAA G UCCGGCAG 3426 CTGCCAGA GGCTAGCTACAACGA AGACCTACA 4711 4712 90 UCCGUCUG G CUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA AGACCAGA 4714 102 GUCUGCA A CUCUCUCU 3430 GGAGAGGA GGTAGCTACAACGA ACCAGCAC 3431 GGTCCCCAACACACACACACACACACA	62	CUGCCUGC G CCGGGCAU	3417	ATGCCCGG GGCTAGCTACAACGA GCAGGCAG	4703
72 CGGGCAUC A CUUGCGCG 3420 CGCGCAAG GGCTAGCTACAACGA GATGCCC 4706 76 NUCACUU G CGCGCGC 3421 GCGGCGCG GGCTAGCTACAACGA AACTGATG 4707 78 UCACUUGC G CGCCGCAG 3422 CTGCGGCG GGCTAGCTACAACGA CAACTGA 4708 80 ACUUGCGC G CGCAGGAA 3423 TTCTGCGG GGCTAGCTACAACGA GCACAGTA 4709 81 UGGGCGCC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GGCGCGCA 4710 90 CGCAGAAA GUCUGCUG 3425 CAGACGGA GGCTAGCTACAACGA GGCGCGCA 4711 94 GAAGUCC G UCUGCAG 3426 CTGCCAGA GGCTAGCTACAACGA CGACGGA 4711 102 GUCUGCA G CUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA CAGACGGA 4714 108 CAGCCUGA A UAUCCUCU 3429 AGAGGATA GGCTACAACGA ACGAGAGA 4716 120 CCUUCCU A CCGGCAC 3431 GGTGCCGG GGCTAGCTACAACGA AGGAGAGA 4717 124 UCUACCG A CCCGGCAGA 3433 TCTGCGGG GGCTAGCTACAACGA </td <td>67</td> <td>UGCGCCGG G CAUCACUU</td> <td>3418</td> <td>AAGTGATG GGCTAGCTACAACGA CCGGCGCA</td> <td>4704</td>	67	UGCGCCGG G CAUCACUU	3418	AAGTGATG GGCTAGCTACAACGA CCGGCGCA	4704
NUCACUU G CGCGCCGC 3421 GCGGCGC GGCTAGCTACAACGA AAGTGATG 4707 78	69	CGCCGGGC A UCACUUGC	3419	GCAAGTGA GGCTAGCTACAACGA GCCCGGCG	4705
78 UCACUUGC G GCCGCAGA 3422 CTGCGGC GGCTAGCTACAACGA GCAAGTAA 4708 80 ACUUGCGC G CCGCAGAA 3423 TTCTGCGG GGCTAGCTACAACGA GCCAAGT 4709 83 UGCGCGCC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GGCCGCCA 4710 90 CGCAGAAA G UCUGGCAG 3425 CAGACGGA GGCTAGCTACAACGA GGCTTTCC 4711 94 GAAAGUCC G UCUGGCAG 3426 CTGCCAGA GGCTAGCTACAACGA CAGACTTC 4712 99 UCCGUCUG G CAGCCUGG 3427 CCAGGCTG GGCTAGCTACAACGA CAGACGAC 4714 108 CAGCCUGG A UAUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA ACCAGGCA 4715 110 GCCUGGAA A UCCUACCU 3431 GGTGCGG GGCTAGCTACAACGA ACGAGAGGA 4716 124 UCCUACCG A CCCCCAGA 3433 TTTGCGGG GGCTAGCTACAACGA AGGTAGGA 4717 130 CGC	72	CGGGCAUC A CUUGCGCG	3420	CGCGCAAG GGCTAGCTACAACGA GATGCCCG	4706
80 ACUUGCGC G CGCAGAA 3423 TTCTGCGG GGCTAGCTACAACGA GGCGAAGT 4709 83 UGCGCGCC G CAGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GGCGCCA 4710 90 CGCAGAAA G UCCGUCUG 3425 CAGACGGA GGCTAGCTACAACGA GGACTTTC 4711 94 GAAAGUCC G UCCGGCAG 3426 CTGCCAGA GGCTAGCTACAACGA GGACTTTC 4712 99 UCCGUCUG G CCUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA CAGACGGA 4714 108 CAGCCUGG A UAUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA CCAGGCTG 4716 120 CCUCUCCU A CCCGCACC 3431 GGTGCCGG GGCTAGCTACAACGA AGCAGAGGA 4717 124 UCCUACCG C ACCCGCAC 3432 TGCGGGTG GGCTAGCTACAACGA AGCAGAGA 4717 126 CUACCGGC C ACCCGCAA 3433 TCTGCGGG GGCTAGCTACAACGA AGGTGCCG 4720 134 A	7€.	AUCACUU G CGCGCCGC	3421	GCGGCGCG GGCTAGCTACAACGA AAGTGATG	4707
83 UGCGCGCC C AGAAAGU 3424 ACTTTCTG GGCTAGCTACAACGA GGCGCGCA 4710 90 CGCAGAAA G UCCGUCUG 3425 CAGACGGA GGCTAGCTACAACGA TTTCTGCG 4711 94 GAAAGUCC G UCUGGCAG 3426 CTGCCAGA GGCTAGCTACAACGA GGACTTTC 4712 99 UCCGUCUG G CAGCCUGG 3427 CCAGGCTG GGCTAGCTACAACGA CAGACGGA 4714 102 GUCUGGCA G UUCUCUCU 3428 TATCCAGG GGCTAGCTACAACGA CCAGGCTG 4715 110 GCCUGGAU A UCCUCUCU 3429 AGAGGGGA GGCTAGCTACAACGA ACCAGGCT 4716 120 CCUCUCCU A CCGGCACC 3431 GGTGCGG GGCTAGCTACAACGA ACGAGAGG 4717 124 UCCUACCG G CACCCGCA 3432 TGCGGGT GGCTAGCTACAACGA ACGGTAGGA 4718 126 CUACCGGC A CAGACGC 3434 GGCGTAGCTACAACGA GCGGTAGGT 4719 136 CCGCAGAC	78	UCACUUGC G CGCCGCAG	3422	CTGCGGCG GGCTAGCTACAACGA GCAAGTGA	4708
90 CGCAGAAA G UCCGUCUG 3425 CAGACGGA GGCTAGCTACAACGA TTTCTGCG 4711 94 GAAAGUCC G UCUGGCAG 3426 CTGCCAGA GGCTAGCTACAACGA GGACTTTC 4712 99 UCCGUCUG G CAGCCUGG 3427 CCAGGCTG GGCTAGCTACAACGA CAGACGA 4713 102 GUCUGGCA G CCUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA TGCCAGAC 4714 108 CAGCCUGG A UAUCCUCU 3430 GGAGAGGA GGCTAGCTACAACGA ATCCAGGC 4716 110 GCCUGGAU A UCCUCUCC 3430 GGAGGGGG GGCTAGCTACAACGA ATCCAGGC 4716 120 CCUCUCCU A CCGGCACC 3431 GGTGCCGG GGCTAGCTACAACGA ATGCAGGA 4717 124 UCCUACCG G CACCCGCA 3432 TCGCGGTG GGCTAGCTACAACGA GGGTAGGA 4718 126 CUACCGCC A CCCGCAGA 3433 TCTGCGGG GGCTAGCTACAACGA GGCGTAGGA 4719 130 CGGCAGAC G CCGCUGCA 3434 GGCGTAGCTACAACGA GCGTAGCTACAACGA GGTCTGCGG 4720 134 ACCGCCAG A CGCCCUGCA 3435 CAGGGGCG GGCTAGCTACAACGA GTCTGCGG 4722 142 ACCCCCUG G CAGCCCGC 3437 GGCGCGG GGCTAGCTACAACGA AGGGCGC	80	ACUUGCGC G CCGCAGAA	3423	TTCTGCGG GGCTAGCTACAACGA GCGCAAGT	4709
94 GAAAGUCC G UCUGGCAG 3426 CTGCCAGA GGCTAGCTACAACGA GGACCTTC 4712 99 UCCGUCUG G CAGCCUGG 3427 CCAGGCTG GGCTAGCTACAACGA CAGACGGA 4713 102 GUCUGGCA G CCUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA TGCCAGAC 4714 108 CAGCCUGG A UAUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA ATCCAGGC 4716 120 CCUCUCCU A UCCUCCUC 3430 GGTGCGG GGCTAGCTACAACGA AGGAGAGG 4717 120 CCUCUCCU A CCGCACC 3431 GGTGCGG GGCTAGCTACAACGA AGGAGAGG 4718 124 UCCUACCGG G CACCCGCA 3423 TCTGCGGT GGCTAGCTACAACGA ACGGCTAGGA 4718 126 CUACCGGC A CCCCCAGA 3433 TCTGCGGT GGCTAGCTACAACGA GCCGGTAGGT 4719 134 ACCCGCAG A CGCCCCUG 3435 CAGGGGG GCTAGCTACAACGA GTCTGCGG 4722 142 <	83	UGCGCGCC G CAGAAAGU	3424	ACTITCTG GGCTAGCTACAACGA GGCGCGCA	4710
99 UCCGUCUG G CAGCCUGG 3427 CCAGGCTG GCTACCTACAACGA CAGACGGA 4713 102 GUCUGGCA G CCUGGAUA 3428 TATCCAGG GGCTACCTACAACGA TGCCAGAC 4714 108 CAGCCUGG A UAUCCUCU 3429 AGAGGATA GGCTACCTACAACGA CCAGGCTG 4715 110 GCCUGGAU A UCCUCUC 3430 GGAGAGGA GGCTACCTACAACGA ATCCAGGC 4716 120 CCUCUCCU A CCGCCACC 3431 GGTGCCGG GGCTACCTACAACGA AGGAGAGG 4717 124 UCCUACCG G CACCCGCA 3432 TGCGGGTG GGCTACCTACAACGA GGCGGTAGG 4718 126 CUACCGGC A CCCGCAGA 3433 TCTGCGGG GGCTACCTACAACGA GCGGTAGG 4719 130 CGGCACCC G CAGACGCC 3434 GGCGTCTGCTACAACGA GCGGTGGG 4720 134 ACCCGCAG A CCCCUGCA 3435 CAGGGGCG GGCTACCTACAACGA CTGCGGGT 4721 136 CCGCAGAC G CCCCUGCA 3435 CAGGGGGG GGCTACCTACAACGA GTCTGCGG 4722 142 ACGCCCU G CAGCCGCU 3437 GGCGGCTG GCTACCTACAACGA GTCTGCGG 4722 142 ACGCCCUGCA G CCCCGGGU 3439 ACCGGCGG GCTAGCTACAACGA GTCACAGA 4722 148 CUGCAGCC G CCGGGU 3439 ACCGGCGG GGCTAGCTACAACGA GGCTGCAG 4724 148 CUGCAGCC G CCGGGG 3440 GGCCCGGG GGCTAGCTACAACGA CGGCCGC 4725 152 AGCCGCCG G CCCCGGG 3441 CCCGCGGG GGCTAGCTACAACGA CG	90	CGCAGAAA G UCCGUCUG	3425	CAGACGGA GGCTAGCTACAACGA TTTCTGCG	4711
102 GUCUGGCA G CCUGGAUA 3428 TATCCAGG GGCTAGCTACAACGA TGCCAGAC 4714 108 CAGCCUGG A UAUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA CCAGGCTG 4715 110 GCCUGGAU A UCCUCUCC 3430 GGAGAGGA GGCTAGCTACAACGA ATCCAGGC 4716 120 CCUCUCCU A CCGGCAC 3431 GGTGCGG GGCTAGCTACAACGA AGGAGAGG 4718 124 UCCUACCG C CACCGCA 3432 TGCGGGG GGCTAGCTACAACGA CGGTAGGA 4718 126 CUACCGGC C CAGCAGC 3434 GGCGTTG GGCTAGCTACAACGA GCGGTGG 4720 134 ACCCGCAGA C CCCUGCA 3435 CAGGGGG GGCTAGCTACAACGA GGCTGGGGT 4722 142 ACCCCAGAC C CCCUGCA 3436 TGCAGGGG GCTAGCTACAACGA AGGGCGT 4722 142 ACGCCCCU G CAGCCGCU 3437 GGCGGCTG GGCTAGCTACAACGA AGGGGCGT 4724 148 CUGC	94	GAAAGUCC G UCUGGCAG	3426	CTGCCAGA GGCTAGCTACAACGA GGACTTTC	4712
108 CAGCCUGG A UAUCCUCU 3429 AGAGGATA GGCTAGCTACAACGA CCAGGCTG 4715 110 GCCUGGAU A UCCUCUCC 3430 GGAGAGGA GGCTAGCTACAACGA ATCCAGGC 4716 120 CCUCUCCU A CCGGCACC 3431 GGTGCCGG GGCTAGCTACAACGA AGGAGAGG 4717 124 UCCUACCG G CACCCGCA 3432 TGCGGGT GGCTAGCTACAACGA CGGTAGGA 4718 126 CUACCGGC A CCCGCAGA 3433 TCTGCGGG GGCTAGCTACAACGA GCCGGTAG 4719 130 CGGCACCC G CAGACGCC 3434 GGCGTTG GGCTACCTACAACGA GCCGGTAG 4720 134 ACCCGCAG A CGCCCUGA 3435 CAGGGGG GGCTAGCTACAACGA CTGCGGGT 4721 136 CCGCAGAC G CCCCUGA 3436 TGCAGGGG GGCTAGCTACAACGA CTGCGGGT 4722 142 ACGCCCUG G CAGCCCGA 3437 GGCGGCTG GGCTAGCTACAACGA CTGCAGGG 4724 148 CUGCAGCC G CCGGGGG 3443 ACCGGCGG GGCTAGCTACAACGA CGGCGGC 4725 152 AGCCGCG G CCGGGGG 3441 CCCGGCCGA GGCTAGCTACAACGA CGGCGGC 4725 158 CGGUCGG G CCCCGGG 3441 CCCGGGGCG GGCTAGCTACAACGA CGGCCACGG 4729 <td>99</td> <td>UCCGUCUG G CAGCCUGG</td> <td>3427</td> <td>CCAGGCTG GGCTAGCTACAACGA CAGACGGA</td> <td>4713</td>	99	UCCGUCUG G CAGCCUGG	3427	CCAGGCTG GGCTAGCTACAACGA CAGACGGA	4713
110 GCCUGGAU A UCCUCUCC 3430 GGAGAGGA GGCTAGCTACAACGA ATCCAGGC 4716 120 CCUCUCCU A CCGGCACC 3431 GGTGCCGG GGCTAGCTACAACGA AGGAGAGG 4717 124 UCCUACCG G CACCCGCA 3432 TGCGGGTG GGCTAGCTACAACGA CGGTAGGA 4718 126 CUACCGGC A CCCGCAGA 3433 TCTGCGGG GGCTAGCTACAACGA CGGTAGG 4719 130 CGGCACCC G CAGACGCC 3434 GGCGTCTG GGCTAGCTACAACGA GGGTGCCG 4720 134 ACCCGCAGA A CGCCCCUG 3435 CAGGGGCG GGCTAGCTACAACGA CTGCGGGT 4721 136 CCGCAGAC G CCCCUGCA 3436 TGCAGGGG GGCTAGCTACAACGA GTCTGCGG 4722 142 ACCCCCCU G CAGCCCGG 3437 GGCGGCTG GGCTAGCTACAACGA AGGAGGGGG 4724 145 CCCCUGCA G CCGCCGGU 3438 ACCGGCCG GGCTAGCTACAACGA GGTGCAA 4725 152 AGCCGCCG G CCGGCCU 3440 GGCGCCGG GGCTAGCTACAACGA CGGCGGC 4726 156 GCGGUCG G CCCCGGG 3441 CCCGGGG GGCTAGCTACAACGA CGGCGCC 4728 158 CGGUCGG G CUCCCUAG 3443 CTAGGGG GGCTACAACGA CGGCCGC 4728	102	GUCUGGCA G CCUGGAUA	3428	TATCCAGG GGCTAGCTACAACGA TGCCAGAC	4714
120 CCUCUCCU A CCGGCACC 3431 GGTGCCGG GGCTAGCTACAACGA AGGAGAGG 4717 124 UCCUACCG G CACCCGCA 3432 TGCGGGTG GGCTAGCTACAACGA CGGTAGGA 4718 126 CUACCGGC A CCCGCAGA 3433 TCTGCGGG GGCTAGCTACAACGA GCCGGTAG 4719 130 CGGCACCC G CAGACGCC 3434 GGCGTCTG GGCTAGCTACAACGA GGGTGCCG 4720 134 ACCCGCAGA A CGCCCCUG 3435 CAGGGGCG GGCTAGCTACAACGA CTGCGGGT 4721 136 CCGCAGAC G CCCCUGCA 3436 TGCAGGGG GGCTAGCTACAACGA GTCTGCGG 4722 142 ACGCCCCU G CAGCCGCC 3437 GGCGGCTG GGCTAGCTACAACGA AGGGGCGT 4723 145 CCCCUGCA G CCGGUCGG 3438 ACCGGCGG GGCTAGCTACAACGA TGCAGGG 4724 148 CUGCAGCC G CCGGGUCGG 3440 GGCGCCGA GGCTAGCTACAACGA GGCCGGC 4725 152 AGCCGCC G CCCGGGG 3441 CCCGGGGC GGCTAGCTACAACGA CGACCGGC 4727 158 CGGUCGGC G CCCGGGG GCCCGA GCCTAGCTACAACGA CCGGGCCC 4728 164 GCGCCCGG G CCCCGGG GCCCCAGCCGGG GGCTAGCTACAACGA CCGGGCCC 4729 172 GCUCACUA G CCCCUGA	108	CAGCCUGG A UAUCCUCU	3429	AGAGGATA GGCTAGCTACAACGA CCAGGCTG	4715
124 UCCUACCG G CACCCGCA 3432 TGCGGGTG GGCTAGCTACAACGA CGGTAGGA 4718 126 CUACCGGC A CCCGCAGA 3433 TCTGCGGG GGCTAGCTACAACGA GCCGGTAG 4719 130 CGGCACCC G CAGACGCC 3434 GGCGTCTG GGCTAGCTACAACGA CGGCGGT 4720 134 ACCCGCAGA A CGCCCUGCA 3435 CAGGGGCG GGCTAGCTACAACGA CTGCGGGT 4721 136 CCGCAGAC G CCCCUGCA 3436 TGCAGGGG GGCTAGCTACAACGA AGGGGGT 4722 142 ACGCCCCU G CAGCCGCU 3437 GGCGGCGG GGCTAGCTACAACGA AGGGGGGT 4724 148 CUGCAGCC G CCGGUCGG 3449 CGGACCGG GGCTAGCTACAACGA GGCTGCAG 4725 152 AGCCGCC G CCGGGGCU 3441 CCCGGGGC GGCTAGCTACAACGA CGGCCGGC 4727 158 CGGUCGGC G CCCGGGGCU 3442	110	GCCUGGAU A UCCUCUCC	3430	GGAGAGGA GGCTAGCTACAACGA ATCCAGGC	4716
126 CUACCGGC A CCCGCAGA 3433 TCTGCGGG GGCTAGCTACAACGA GCCGGTAG 4719 130 CGGCACCC G CAGACGCC 3434 GGCGTCTG GGCTAGCTACAACGA GGGTGCCG 4720 134 ACCCGCAG A CGCCCCUG 3435 CAGGGGCG GGCTAGCTACAACGA CTGCGGGT 4721 136 CGGCAGAC G CCCCUGCA 3436 TGCAGGGG GGCTAGCTACAACGA GTCTGCGG 4722 142 ACGCCCCU G CAGCCGCC 3437 GGCGGCTG GGCTAGCTACAACGA AGGGGCGT 4723 145 CCCCUGCA G CCGCCGGU 3438 ACCGGCGG GGCTAGCTACAACGA TGCAGGGG 4724 148 CUGCAGCC G CCGGUCGG 3439 CCGACCGG GGCTAGCTACAACGA GGCGGCT 4725 152 AGCCGCCG G UCGGCGCC 3440 GGCGCCGA GGCTAGCTACAACGA GGCGGCT 4726 156 GCCGGUCG G CGCCGGG 3441 CCCCGGGC GGCTAGCTACAACGA CGACCGGC 4727 158 CGGUCGG G CCCCGGGG 3441 CCCCGGGC GGCTAGCTACAACGA CGACCGG 4728 164 GCGCCCGG G CUCCCUAG 3442 AGCCCGGG GGCTAGCTACAACGA CCGACCG 4728 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA CCGGCCGC 4729 173 CUAGCCCU G UGCGCUCA 3444 GCACAGGG GGCTAGCTACAACGA TAGGGAGC 4730 177 CUAGCCCU G UGCGCUCA 3445 TGAGGGCA GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCG GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CCCUAACU 3447 CAGTTGAG GGCTAGCTACAACGA ACAGGGCT 4732 181 CCCUGUGC G CUCAACUG 3448 CAGGGCA GGCTAGCTACAACGA ACAGGGCT 4732 182 CCCUGUCC G CUCAACUG 3449 CAGGGCAG GGCTAGCTACAACGA ACAGGGC 4733 186 UGCGCUCA A CUGUCCUG 3449 GCGCAGGA GGCTAGCTACAACGA AGAGGCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGA GGCTAGCTACAACGA AGAGCACAG 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGA GGCTAGCTACAACGA AGAGCACAG 4735 194 ACUGUCCU G CGCUCAG 3450 CCCCCGAG GGCTAGCTACAACGA AGACAGT 4736 196 UGUCCUGC G CUGCGGG 3450 CCCCCGAG GGCTAGCTACAACGA AGACAGT 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCCG GGCTAGCTACAACGA AGACAGT 4736 199 CCUGCGCU G CGGGGGGC 3452 GCCCCCG GGCTAGCTACAACGA AGACAGT 4736 199 CCUGCGCU G CGGGGGG 3452 GCCCCCG GGCTAGCTACAACGA AGACAGT 4736	120	CCUCUCCU A CCGGCACC	3431	GGTGCCGG GGCTAGCTACAACGA AGGAGAGG	4717
130 CGGCACCC G CAGACGCC 3434 GGCGTCTG GGCTAGCTACAACGA GGGTGCCG 4720 134 ACCCGCAG A CGCCCCUG 3435 CAGGGGCG GGCTAGCTACAACGA CTGCGGGT 4721 136 CGGCAGAC G CCCCUGCA 3436 TGCAGGGG GGCTAGCTACAACGA GTCTGCGG 4722 142 ACGCCCCU G CAGCCGCC 3437 GGCGGCTG GGCTAGCTACAACGA AGGGGCGT 4723 145 CCCCUGCA G CCGCCGGU 3438 ACCGGCGG GGCTAGCTACAACGA AGGGGCGT 4724 148 CUGCAGCC G CCGGUCGG 3439 CCGACCGG GGCTAGCTACAACGA TGCAGGGG 4724 152 AGCCGCCG G UCGGCGC 3440 GGCGCCGA GGCTAGCTACAACGA CGGCGGCT 4726 155 AGCCGCCG G CGCCGGG 3441 CCCGGGGC GGCTAGCTACAACGA CGACCGGC 4727 158 CGGUCGGC G CCCGGGGU 3442 AGCCCGGG GGCTAGCTACAACGA CGACCGGC 4728 164 GCGCCCGG G CUCCCUAG 3443 CTAGGGAG GGCTAGCTACAACGA CCGGCGC 4729 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA CCGGCGC 4730 177 CUAGCCCU G UGCGCUCA 3445 TGAGCGCA GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCGA GGCTAGCTACAACGA ACAGGGCT 4732 181 CCCUGUGC G CUCAACU 3447 CAGTTGAG GGCTAGCTACAACGA ACAGGGCT 4732 182 CCCUGUGC G CUCAACU 3447 CAGTTGAG GGCTAGCTACAACGA ACAGGGCT 4733 186 UGCGCUCA A CUGUCCUG 3448 CAGGACAG GGCTAGCTACAACGA ACAGGGCT 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGA GGCTAGCTACAACGA AGGCCCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGA GGCTAGCTACAACGA AGGCCAA 4734 189 GCUCAACU G UCCUGCGC 3450 CCGCAGCG GGCTAGCTACAACGA AGGACAGT 4736 194 ACUGUCCU G CGCUGCGG 3450 CCGCAGCG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCGCAG GGCTAGCTACAACGA AGGACAGT 4737 199 CCUGCGCU G CGGGGGG 3451 CCCCCGCAG GGCTAGCTACAACGA AGGACAGT 4736	124	UCCUACCG G CACCCGCA	3432	TGCGGGTG GGCTAGCTACAACGA CGGTAGGA	4718
ACCGCAGA A CGCCCCUG 3435 CAGGGGCG GGCTAGCTACAACGA CTGCGGGT 4721 136 CCGCAGAC G CCCCUGCA 3436 TGCAGGGG GGCTAGCTACAACGA GTCTGCGG 4722 142 ACGCCCCU G CAGCCGCC 3437 GGCGGCTG GGCTAGCTACAACGA AGGGGCGT 4723 145 CCCCUGCA G CCGCCGGU 3438 ACCGGCGG GGCTAGCTACAACGA TGCAGGGG 4724 148 CUGCAGCC G CCGGUCGG 3439 CCGACCGG GGCTAGCTACAACGA TGCAGGGG 4725 152 AGCCGCG G UCGGCGCC 3440 GGCGCCGA GGCTAGCTACAACGA CGGCGGCT 4726 156 GCCGGUCG G CGCCCGGG 3441 CCCGGGGG GGCTAGCTACAACGA CGACCGGC 4727 158 CGGUCGGC G CCCCGGGG 3441 CCCGGGG GGCTAGCTACAACGA CGACCGGC 4728 164 GCGCCCGG G CUCCCUAG 3442 AGCCCGGG GGCTAGCTACAACGA CCGGCCGC 4729 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA CCGGCGC 4729 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA TAGGGAGC 4730 177 CUAGCCCU G UGCGCUCA 3445 TGAGCGCA GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCG GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCG GGCTAGCTACAACGA ACGGGCT 4732 181 CCCUGUGC G CUCAACUG 3447 CAGTTGAG GGCTAGCTACAACGA ACGGGCT 4733 186 UGCGCUCA A CUGUCCUG 3448 CAGGACAG GGCTAGCTACAACGA TGAGCGCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCCCAGGG GGCTAGCTACAACGA AGTTGAGC 4735 194 ACUGUCCU G CGCUGCGG 3450 CCGCAGCG GGCTAGCTACAACGA AGTTGAGC 4735 196 UGUCCUGC G CUGCGGG 3451 CCCCGCAG GGCTAGCTACAACGA AGTTGAGC 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCGCAG GGCTAGCTACAACGA AGGACAGT 4736 199 CCUGCGCU G CGGGGGGG 3451 CCCCGCAG GGCTAGCTACAACGA AGGACAGT 4737 199 CCUGCGCU G CGGGGGGG 3452 GCCCCCG GGCTAGCTACAACGA AGCACAGG 4738	126	CUACCGGC A CCCGCAGA	3433	TCTGCGGG GGCTAGCTACAACGA GCCGGTAG	4719
136 CCGCAGAC G CCCCUGCA 3436 TGCAGGGG GGCTAGCTACAACGA GTCTGCGG 4722 142 ACGCCCU G CAGCCGCC 3437 GGCGGCTG GGCTAGCTACAACGA AGGGGCGT 4723 145 CCCCUGCA G CCGCCGGU 3438 ACCGGCGG GGCTAGCTACAACGA TGCAGGGG 4724 148 CUGCAGCC G CCGGUCGG 3439 CCGACCGG GGCTAGCTACAACGA GGCTGCAG 4725 152 AGCCGCCG G UCGGCGCC 3440 GGCGCCGA GGCTAGCTACAACGA CGGCGGCT 4726 156 GCCGGUCG G CGCCCGGG 3441 CCCGGGGG GGCTAGCTACAACGA CGGCGGCT 4727 158 CGGUCGGC G CCCGGGCU 3442 AGCCCGGG GGCTAGCTACAACGA CGACCGGC 4727 158 CGGUCGGC G CCCGGGCU 3442 AGCCCGGG GGCTAGCTACAACGA CCGACCG 4728 164 GCGCCCGG G CUCCCUAG 3443 CTAGGGAG GGCTAGCTACAACGA CCGGCCGC 4729 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA CGGGCGC 4730 177 CUAGCCCU G UGCGCUCA 3445 TGAGCGCA GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCG GGCTAGCTACAACGA AGGGCTAG 4732 181 CCCUGUGC G CUCAACUG 3447 CAGTTGAG GGCTAGCTACAACGA ACAGGGCT 4732 182 GGCCCUCA A CUGUCCUG 3448 CAGGACAG GGCTAGCTACAACGA TGAGCGCA 4734 184 GCCCUGUG G CUCAACUG 3449 GCGCAGGG GGCTAGCTACAACGA TGAGCGCA 4734 185 GCUCAACU G UCCUGCGC 3449 GCGCAGGG GGCTAGCTACAACGA AGTTGAGC 4735 194 ACUGUCCU G CGCUGCGG 3450 CCGCAGCG GGCTAGCTACAACGA AGGACAGT 4736 195 CCUGCGCU G CGCGGGG 3451 CCCCGCAG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGGG 3451 CCCCCGCAG GGCTAGCTACAACGA AGCGCAGG 4733	130	CGGCACCC G CAGACGCC	3434	GGCGTCTG GGCTAGCTACAACGA GGGTGCCG	4720
142 ACGCCCU G CAGCCGCC 3437 GGCGGCTG GGCTAGCTACAACGA AGGGGCGT 4723 145 CCCCUGCA G CCGCCGGU 3438 ACCGGCGG GGCTAGCTACAACGA TGCAGGGG 4724 148 CUGCAGCC G CCGGUCGG 3439 CCGACCGG GGCTAGCTACAACGA GGCTGCAG 4725 152 AGCCGCCG G UCGGCGCC 3440 GGCGCCGA GGCTAGCTACAACGA CGGCGGCT 4726 156 GCCGGUCG G CGCCCGGG 3441 CCCGGGGG GGCTAGCTACAACGA CGACCGGC 4727 158 CGGUCGGC G CCCGGGCU 3442 AGCCCGGG GGCTAGCTACAACGA CGACCGGC 4728 164 GCGCCCGG G CUCCCUAG 3443 CTAGGGAG GGCTAGCTACAACGA CCGGCCGC 4729 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA CCGGCGCC 4730 177 CUAGCCCU G UGCGCUCA 3445 TGAGCGCA GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCG GGCTAGCTACAACGA ACAGGGCT 4732 181 CCCUGUGC G CUCAACUG 3447 CAGTTGAG GGCTAGCTACAACGA ACAGGGCT 4733 186 UGCGCUCA A CUGUCCUG 3448 CAGGACAG GGCTAGCTACAACGA TGAGCGCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGG GGCTAGCTACAACGA AGGCCCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGG GGCTAGCTACAACGA AGGCCCA 4735 194 ACUGUCCU G CGCUGCGG 3450 CCGCAGCG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCCGCAG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCCGCAG GGCTAGCTACAACGA AGGACAGT 4737 199 CCUGCGCU G CGGGGGGG 3451 CCCCCGCAG GGCTAGCTACAACGA AGGACAGT 4737	134	ACCCGCAG A CGCCCCUG	3435	CAGGGGCG GGCTAGCTACAACGA CTGCGGGT	4721
145 CCCCUGCA G CCGCCGGU 3438 ACCGGCGG GGCTAGCTACAACGA TGCAGGGG 4724 148 CUGCAGCC G CCGGUCGG 3439 CCGACCGG GGCTAGCTACAACGA GGCTGCAG 4725 152 AGCCGCCG G UCGGCGCC 3440 GGCGCCGA GGCTAGCTACAACGA CGGCGGCT 4726 156 GCCGGUCG G CGCCCGGG 3441 CCCCGGGCG GGCTAGCTACAACGA CGACCGGC 4727 158 CGGUCGGC G CCCCGGG 3441 CCCCGGGG GGCTAGCTACAACGA CGACCGGC 4728 164 GCGCCCGG G CUCCCUAG 3442 AGCCCGGG GGCTAGCTACAACGA CCGACCG 4728 164 GCGCCCGG G CUCCCUAG 3443 CTAGGGAG GGCTAGCTACAACGA CCGGGCGC 4729 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA TAGGGAGC 4730 177 CUAGCCCU G UGCGCUCA 3445 TGAGCGCA GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCG GGCTAGCTACAACGA ACAGGGCT 4732 181 CCCUGUGC G CUCAACUG 3447 CAGTTGAG GGCTAGCTACAACGA ACAGGGCT 4733 186 UGCGCUCA A CUGUCCUG 3448 CAGGACAG GGCTAGCTACAACGA TGAGCGCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGG GGCTAGCTACAACGA AGGACAGT 4736 194 ACUGUCCU G CGCUGCGG 3450 CCGCAGGG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCCGCAG GGCTAGCTACAACGA AGGACAGT 4736 199 CCUGCGCU G CGGGGGGG 3451 CCCCCGCAG GGCTAGCTACAACGA AGGACAGT 4737 199 CCUGCGCU G CGGGGGGG 3452 GCCCCCG GGCTAGCTACAACGA AGGACAGT 4736	136	CCGCAGAC G CCCCUGCA	3436	TGCAGGGG GGCTAGCTACAACGA GTCTGCGG	4722
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158 CGGUCGGC G CCCGGGCU 3442 AGCCCGGG GGCTAGCTACAACGA GCCGACCG 4728 164 GCGCCCGG G CUCCCUAG 3443 CTAGGGAG GGCTAGCTACAACGA CCGGGCGC 4729 172 GCUCCCUA G CCCUGUGC 3444 GCACAGGG GGCTAGCTACAACGA TAGGGAGC 4730 177 CUAGCCCU G UGCGCUCA 3445 TGAGGCGA GGCTAGCTACAACGA AGGGCTAG 4731 179 AGCCCUGU G CGCUCAAC 3446 GTTGAGCG GGCTAGCTACAACGA ACAGGGCT 4732 181 CCCUGUGC G CUCAACUG 3447 CAGTTGAG GGCTAGCTACAACGA GCACAGGG 4733 186 UGCGCUCA A CUGUCCUG 3448 CAGGACAG GGCTAGCTACAACGA TGAGCGCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGA GGCTAGCTACAACGA AGTTGAGC 4735 194 ACUGUCCU G CGCUGCGG 3450 CCGCAGCG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCGCAG GGCTAGCTACAACGA GCACAGGA 4737 199 CCUGCGCU G CGGGGGGG 3452 GCACCCCG GGCTAGCTACAACGA AGGACAG 4738	152	AGCCGCCG G UCGGCGCC	3440	GGCGCCGA GGCTAGCTACAACGA CGGCGGCT	4726
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186 UGCGCUCA A CUGUCCUG 3448 CAGGACAG GGCTAGCTACAACGA TGAGCGCA 4734 189 GCUCAACU G UCCUGCGC 3449 GCGCAGGA GGCTAGCTACAACGA AGTTGAGC 4735 194 ACUGUCCU G CGCUGCGG 3450 CCGCAGCG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGG 3451 CCCCGCAG GGCTAGCTACAACGA GCAGGACA 4737 199 CCUGCGCU G CGGGGUGC 3452 GCACCCCG GGCTAGCTACAACGA AGCGCAGG 4738	181	CCCUGUGC G CUCAACUG			
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194 ACUGUCCU G CGCUGCGG 3450 CCGCAGCG GGCTAGCTACAACGA AGGACAGT 4736 196 UGUCCUGC G CUGCGGGG 3451 CCCCGCAG GGCTAGCTACAACGA GCAGGACA 4737 199 CCUGCGCU G CGGGGUGC 3452 GCACCCCG GGCTAGCTACAACGA AGCGCAGG 4738	189	GCUCAACU G UCCUGCGC			
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199 CCUGCGCU G CGGGGUGC 3452 GCACCCCG GGCTAGCTACAACGA AGCGCAGG 4738	196				
	204	GCUGCGGG G UGCCGCGA	3453	TCGCGGCA GGCTAGCTACAACGA CCCGCAGC	4739

206 GIGGOGGU G COGCOCO 3454 ACTOGGG GICTAGCTACAGGA ACCCCCC 4741 213 UGCCGCGA G UUCCACCU 3455 AGGTGGAA GIGCTAGCTACAGGA GGCCCCC 4742 214 COLCOCOGG G CUCCCGGG 3457 GGGGGAG GICTAGCTACAGGA TCGCGGCA 4742 224 COLCCCGC G COCCCUCC 3459 AGGAGCGG GICTAGCTACAGGA GGGAGCTG 4743 225 ACCUCCGC G COCCCUCC 3459 AGGAGCGG GICTAGCTACAACGA GGGAGGTG 4744 226 ACCUCCGC G COCCCUCC 3459 AGGAGCGG GICTAGCTACAACGA GGGAGGTG 4745 227 UUCUCUAG A CAGGGGCU 3469 AGGAGCGG GICTACATACAGA GCGAGGT 4745 228 AGACAGGG G COCCOUCC 3459 GAAGAGAG GGCTACATACAGA CTAGAGAA 4746 224 CULACACAG G COCCUCC 3469 AGGACCGG GGCTAGCTACAACGA CTAGAGAA 4746 224 AGACAGGG G COCCOUCC 3469 GAGACCGG GGCTAGCTACAACGA CTAGAGAA 4746 225 GAGAAAAA A CCGGCCCC 3469 GAGACCGG GGCTAGCTACAACGA CTGCTACA 4747 226 AGACAGGG G CUCCCGGG 3460 CTCGGGGG GGCTAGCTACAACGA CTGCTACA 4747 227 AGUUCUGG G CUUCUGGG 3466 CTCGGGGG GGCTAGCTACAACGA CTGTTCT 4750 228 UUCUGGGC A UUUCGCC 3467 GGGGGAAA GGCTAGCTACAACGA CCGACAT 4752 238 GUCCUGGA G UUCUGGCC 3467 GGGGGAAA GGCTAGCTACAACGA CCGACAT 4752 249 UUCUGGGC A UUUCGCC 3467 GGGCGAAA GGCTAGCTACAACGA CCGACAA 4753 250 UUCUGCCG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGACC 4754 250 UUCUGCGG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGACC 4754 250 UUCUGCGG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGACC 4754 250 UUCUGCGG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGACC 4756 250 UUCUGCGG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CCGACAC 4756 250 UUCUGCGG G CUCGAGGU 3460 ACCTCGAG GGCTAGCTACAACGA CCGACC 4756 250 UUCUGCGG G UCCGAGGU 3476 ACCTCGAG GGCTAGCTACAACGA CCTGCACC 4756 250 UUCUGCGG G UCGAGGG GGCTAGCTACAACGA ACCTGCAC 4756 251 AGAGCAAG G CAAGAGC 3476 GCACACGA GGCTAGCTACAACGA ACCTTGCT 4761 252 UCCUGCGG G CUCGGCC 3476 ACCCCGG GGCTAGCTACAACGA ACCTTGCT 4761 253 AGAGCCAG G CUCGGCC 3476 GCACACGA GGCTAGCTACAACGA ACCC							
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224 CCACCUCCC G CCUCCUUC 3458 AGGAGGGG GGCTAGCTACAACGA GGGAGGTG 4744 226 ACCUCCCG G CCUCCUUC 3459 GAAGGAGG GCCCTAGCTACAACGA GGGAGGT 4745 240 UUCUCUUGA A CAGGGCGU 3461 TCCCCAG GGCTAGCTACAACGA CTGTCTAG 4746 244 CUAGACAG G CUGCGGAG 3461 TCCCCAG GGCTAGCTACAACGA CTGTCTAG 4747 246 AGACAGG G CUGCGGAG 3461 TCCCCAG GGCTAGCTACAACGA CTTTCTCT 4748 259 GABAAGA A CCGGCUCC 3463 GGGCCCCAGAG GGCTAGCTACAACGA CGCTTTCTT 4749 263 AAGAACG G CUCCCGAG 3464 CTCGGGGG GGCTAGCTACAACGA CGGGGGG 4751 271 GCUCCCGAG 3465 GCCCACAA GGCTAGCTACAACGA CGGAGACT 4752 280 UUCUGGGC AUTUCGCC 3468 GAGGCAGACTACAACGA CGGACACACACACACACAACACA	213	UGCCGCGA G UUCCACCU	3456	AGGTGGAA	GGCTAGCTACAACGA	TCGCGGCA	4742
226 ACCUCCGC G CCUCCUC 3459 GAAGGAGG GGCTAGCTACAACGA GCGGAGGT 4745 240 UUCUCUAG A CAGGCGCT A CAGGCCT GGCTAGCTACAACGA CTAGAGAA 4746 244 CUAGACAG G GCUGGGA 3461 TCCCAGGG GCTAGCTACAACGA CTACTACAACTA 246 AGACAGG G CUGGGAG 3461 TCCCAGG GGCTAGCTACAACGA GCTTCTT 4748 259 AGAAACGA A CCGGCUCC 3463 GGAGACGG GCTAGCTACAACGA GCTTCTT 4748 259 AGAAACG G CUCCGGA 3464 CTCGGGAG GGCTAGCTACAACGA TCTTTCTCT 4749 271 GCUCCCGA G 444 CTCGGGAG GGCTAGCTACAACGA TCTTCTACACGA TCTGCAGCA GCGCCAGA 4751 272 ACUUCUG G CAUUUCG C 3466 GCGAAATG GGCTAGCTACAACGA CCAGACCA 4751 285 GGCUCGAG A UUCGCC 3467 GGCGGAAA GGCTAGCTACAACGA CCACGAA 4753 285 GGCUCGAG C UUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGCCAGAA 4753 289 UUCGCCG G CUCGAGGU 3470 ACCTCGAG GGCTAGCTACAACGA CTGCACC 4754 299 CUCGAGGU C CAGAGCA 3472 ACCTCGAG GGCTAGCTACAACGA CTGCACC 4758 304 GUGCAGGA U GCAGACCA 3473 TTGCTCTG GGCTAGCTACAACGA CTGCACC 4758 311 GAUCAGGA G CAGAGCA 3472 GCCCTGGA GGCTAGCTACAACGA CTGCACC 4758 322 ACCCTGG GGCTAGCTACAACGA CTGCACC 4758 <	218	CGAGUUCC A CCUCCGCG	3457	CGCGGAGG	GGCTAGCTACAACGA	GGAACTCG	4743
240 UUCUCUAG A CAGGGGCU 3460 AGCGCTG GGCTAGCTACAACGA CTTGTAGA 4746 244 CUAGACAG G COCUGGGA 3461 TCCCAGCG GGCTAGCTACAACGA CTGTTCTAG 4747 246 AGACAGG G CUGGGASA 3462 TCTCCCAG GGCTAGCTACAACGA CTGTTGTC 1748 259 GAGAAAGA A CCGGCUC 3463 GGAGCGG GGCTAGCTACAACGA CTTTCTC 4749 263 AAGAACGG GUCCCGAG 3464 CTCGAGAG GGCTAGCTACAACGA CGGTTGCT 4752 271 GCUCCAGA GUCLIGGGC 3466 GCCCAGAG GGCTAGCTACAACGA CGGGGGG 4751 280 UUCUGGCC 3467 GGGGGAAG GGCTAGCTACAACGA ATATAGCC 4752 280 UUCGCCG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA ATATAGCC 4754 297 GGCGAGGU GAGAGGAG 3470 ATCCTGAG GGCTAGCTACAACGA CCTGAGCA 299 GUCGAGG A VECCGGC 3469 ACCTCGAG GGCTAGCTACAACGA CTCGAGCA 316 GUCCAGGA A VECCGAGGAC AACTCTGA GGCTAGCTACAACGA CTCGAGCA 4755	224	CCACCUCC G CGCCUCCU	3458	AGGAGGCG	GGCTAGCTACAACGA	GGAGGTGG	4744
244 CUAGACAGG G CUGGGGA 3461 TCCCCAG GGCTAGCTACAACGA CTGTCTAG 4747 246 AGACAGGC G CUGGGAGA 3462 TCTCCCAG GGCTAGCTACAAGA GCCTGTCT 4748 259 GARAAAGA A CCGGUCC 3463 GGAGCGG GGCTAGCTACAAGA TCTTCTCT 4759 263 AAGAACG G CUCCCGAG 3464 CTCGGGAG GGCTAGCTACAAGA TCTGGAGAC 4751 271 GCUCCCGA G UUCUGGC 3465 GCCCAGAA GGCTAGCTACAACGA CCAGAACT 4752 280 UUCUGGG C AUUUCGC 3466 GCGAGAA GGCTAGCTACAACGA CCAGAACT 4752 280 UUCUGGGC A UUUCGCC 3467 GGGGGAA GGCTAGCTACAACGA GCCCAGAA 4753 285 GGCUUUC G CCGGGCU 3468 GGCTAGCTACAACGA GACCAGAA 4753 285 GGCUUUC G CCGGGCU 3469 ACCTCGAG GGCTAGCTACAACGA CCCCAGAA 4755 290 UUCGCCCG G CUCAGGU 3470 ATCCTGCAG GGCTAGCTACAACGA CCTCGAGC A756 297 GCUCGAGG U GCAGAGC 3471 GCATCCTCA GGCTAGCTACAACGA CCTCGAGC 4756 299 CUCGAGGU U GCAGAGC 3472 GCCTCTGCA GGCTAGCTACAACGA CCTGCACC 4758 306 UGCAGGAU G CAGAGCA 3473 TCTCTCTG GGCTAGCTACAACGA ACCTTCCT 4760 311 GAUCCAGA G CAGAGCA 3474 GCACCACT GGCTACAACGA ACCTTCT 4761 312 AAGGUCCU G CUGCCC 3476 GCCCAGCA GGCTAGCTACAACGA ACCTTCT 4762	226	ACCUCCGC G CCUCCUUC	3459	GAAGGAGG	GGCTAGCTACAACGA	GCGGAGGT	4745
246 AGACAGGC G CUGGGAGA 3462 TCTCCCAG GGCTAGCTACAACGA GCCTGTCT 4748 259 AGAAAAGA A CCGGCUCC 3463 GGAGCCGG GGCTAGCTACAACGA TCTTTCTC 4749 263 AAGAACGA G CUCCCGAGA 3464 CTCGGGAGG GGCTAGCTCACAACGA CGGTTCTT 4750 271 GCUCCCGA G UUCUGGG 3465 GCCCAGAA GGCTAGCTACAACGA TCGGGACC 4751 278 AGUUCUGG C AUUUCGCC 3466 GCGAAATG GGCTACAACGA CCGGAACT 4752 280 UUCUGGC A GUCGGCU 3468 GAGCCGGG GGCTAGCTACAACGA GCCAGAAA 4753 285 GGCAUUUC G CCCGGCU 3468 GAGCCGGG GGCTAGCTACAACGA CCGCGAAA 4753 290 UUCGCCG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CCGCGAA 4756 291 GCCUCAGG GUCGAGGAU 3470 ACCTCGAG GGCTAGCTACAACGA CCTCGACC 4756 304 GGUCGAG G A UGCAGAGA 3473 ACTCCTGA GGCTAGCTACAACGA ACCTCGAA 4757 310 GUCGAGGA G CAAGGUGC 3474 GCCCTTGCA GGCTAGCTACAACGA ACCTCGAA 4759 311 GAUGCAGA G CAAGGUGC 3474 GCCACCTG GGCTAGCTACAACGA ACCTCGAA 4759 312 AAGGCAAG G UGCUCGC 3474 GCCAGCAG GGCTAGCTACAACGA ACCCTTCT 4761 318 ACGAAGGU G CUGCGCC 3476 GCCTAGCTACAACGA ACCCCTTC 4762 321 AAGGUCCU G CUGCCCC 3476 GCCTAGCTACAACGA ACCCCTTC 4763	240	UUCUCUAG A CAGGCGCU	3460	AGCGCCTG	GGCTAGCTACAACGA	CTAGAGAA	4746
259 GAGARAGGA A CCGGCUCC 3463 GGAGCCGG GGCTAGCTACAACGA TCTTTCTC 4749 263 AAGAACCG G CUCCCGAG 3464 CTCGGAGA GGCTAGCTACAACGA CGGTTCTT 4750 271 GUCCCGAG G UUCUGGG 3465 GCCCAGAGA GGCTAGCTACAACGA CCGAGACT 4751 278 AGUUCUGG C AUUUCGC 3466 GCGAGAGA GGCTAGCTACAACGA CCGAGACT 4752 280 UUCUGGCC A UUUCGCC 3467 GGGCGAGAA GGCTAGCTACAACGA CCCAGAA 4753 295 GCUCGAG G CCCGGCU 3468 GAGCCGGG GGCTAGCTACAACGA CGCAGAA 4755 290 UUCGCCC G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CCGCAGCA 4756 297 CUCGAGGU G UGCAGGAU 3470 ATCCTGCA GGCTAGCTACAACGA CCTCGAGC 4756 299 CUCGAGGU G UGCAGGAU 3471 CATCCTGC GGCTAGCTACAACGA ATCTGCA 4758 316 GGGCAGAU G UGCAGCAU 3472 CCCTCTGCA GGCTAGCTACAACGA ATCTGCAC 4759 316 AGAGCAAG G UGCUCGU 3476 CCACCTG GGCTAGCTACAACGA ATCTGCACT 4761 318 ACGACGAG G UGCCCGU 3476 ACCGCAGG GGCTAGCTACAACGA ACCTTGCT 4762	244	CUAGACAG G CGCUGGGA	3461	TCCCAGCG	GGCTAGCTACAACGA	CTGTCTAG	4747
263 AAGAACCG G CUCCCGAG 3464 CTCGGGAG GGCTAGCTACAACGA CGGTTCTT 4750 271 GCUCCCGA G UUCUGGC 3465 GCCCAGAA GGCTAGCTACAACGA TCGGGACC 4751 278 AGUUCUGG G CAUUUCGC 3466 GCGAAATG GGCTAGCTACAACGA CCAGAACT 4752 280 UUCUGGG C AUUUCGC 3467 GGGCGAAA GGCTAGCTACAACGA GCCCAGAA 4753 285 GGCAUUUC G CCGGGCC 3468 ACCTCGAG GGCTAGCTACAACGA CGGCCGAAA 4753 290 UUCGCCCG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGCGAAA 4755 297 GGCUCGAG G UGCAGGAU 3470 ATCCTGCA GGCTAGCTACAACGA CTCGAGCA 4756 299 CUCGAGGU G CAGACAA 3471 GCATCCTGA GGCTAGCAACGA ACCTCGAG 4756 304 GGGCAGGA U GCAGACAA 3473 TTGCTCTG GGCTAGCTACAACGA ACCTCGAC 4758 306 GGCAGGAU C CAGAGCAA 3473 TTGCTCTG GGCTAGCTACAACGA ACCTCTCAC 4759 311 GAUGCAGA G CAAGGUAGA 3475 CAGCACCA GGCTAGCTACAACGA ACCTTTCT 4761 316 GCCAGCAU C CAGACAA 3475 CAGCACCA GGCTAGCTACAACGA ACCTTTCT 4761 317 ACGGCACA G GCTAGCTACAACGA ACCCTTTCT 4761 318 ACGAGCAG G UCGCCCUG 3478 GCCAGCAG GGCTAGCTACAACGA ACCCTTTC 4763 322 AAGGUCCU G UCGCCCUG 3478 GCCAGGAG GGCTAGCTACAACGA ACCCCTT 4763 <td< td=""><td>246</td><td>AGACAGGC G CUGGGAGA</td><td>3462</td><td>TCTCCCAG</td><td>GGCTAGCTACAACGA</td><td>GCCTGTCT</td><td>4748</td></td<>	246	AGACAGGC G CUGGGAGA	3462	TCTCCCAG	GGCTAGCTACAACGA	GCCTGTCT	4748
271 GCUCCCGA G UUCUGGGC 3465 GCCCAGAA GGCTAGCTACAACGA TCGGGAGC 4751 278 AGUUCUGG G CAUUUCGCC 3466 GCGAAATG GGCTAGCTACAACGA CCAGAACT 4752 280 UUCUGGCC A UUUCGCCC 3467 GGGCGAAA GGCTAGCTACAACGA GCCCAGAA 4753 285 GGCAUUUC G CCCGGCUC 3468 GAGCCGGG GGTAGCTACAACGA GCCCAGAA 4754 290 UUCGCCG G CUCAGAGAU 3469 ACCTCGCA GGCTAGCTACAACGA CACGAGCA 4755 297 GGCUCGAG GU GAGGAUG 3471 ATCCTGCA GGCTAGCTACAACGA ACCTCGAGC 4758 304 GUGCAGGA U GCAGGAUG 3471 GCTCTCG GGCTAGCTCAACGA ACCTCGACC 4758 306 UGCAGGAU C CAGAGCAA 3473 TTGCTCTG GGCTAGCTCAACGA ACCTCCAC 4758 316 AGACAGAU G CAGGAUG 3474 GCACCTTG GGCTAGCTACAACGA ACCTTCCT 4761 318 AGACAGAU G CAGGCCU 3474 GCACCTTG GGCTAGCTACAACGA ACCTTCCT 4761 318 AGCAAGGU CUGCGCCU 3477 ACGGCAGA GGCTAGCTACAACGA ACCTTCCT 4763 322 LAGGUCGGC 3478 GCGCAGCA GGCTAGCTACAACGA ACCCTTCCT <	259	GAGAAAGA A CCGGCUCC	3463	GGAGCCGG	GGCTAGCTACAACGA	TCTTTCTC	4749
278 AGUUCUGG G CAUUUCGC 3466 GCGAAATG GGCTAGCTACAACGA CCAGAACT 4752 280 UUCUGGGC A UUUCGGCC 3467 GGGGAAA GGCTAGCTACAACGA GCCAGAA 4753 285 GGCAUUC G CCCGGCCC 3468 GAGCCGGG GCTAGCTACAACGA GAAATGCC 4754 290 UUCGCCCG G CUCGAGGU 3468 ACCTCGAG GGCTAGCTACAACGA CGGCGGAA 4755 297 GCUCGAGG G GCAGAGCA 3471 GCATCCTG GGCTAGCTACAACGA CTCGAGCC 4756 299 CUCGAGGU G CAGAGGCA 3471 GCATCTGCA GGCTAGCTACAACGA CCTCGACC 4758 304 GGUGCAGG A GCAGAGCA 3472 GCTCTGCA GGCTAGCTACAACGA CTCGACC 4758 311 GAUCAGGAG G CAAGGUGC 3474 GCACCTTG GGCTAGCTACAACGA TCTGCAC 4761 316 AGAGGAG G UGCUGGC 3474 GCACGCAG GGCTAGCTACAACGA TCTGCTC 4762 321 AAGGUGC G UGGCCGU 3477 ACGGCAGA GGCTAGCTACAACGA ACCTTC 4762 322 DGCUGCUG G CUGCCCUG 3478 ACGCAGGA GGCTAGCTACAACGA ACCTAGCA 4766 331 UGCCGCUG G CCCGCUG 3481 <t>CCACAGGG GGCTAGCTACAACGA AGGCCACA 4766</t>	263	AAGAACCG G CUCCCGAG	3464	CTCGGGAG	GGCTAGCTACAACGA	CGGTTCTT	4750
280 UUCUGGGC A UUUCGCCC 3467 GGGCGAAA GGCTAGCTACAACGA GCCCAGAA 4753 285 GGCAUUUC G CCCGGCUC 3468 GAGCCGGG GGCTAGCTACAACGA GAAATGCC 4754 290 UUCGCCCG G CUCGAGGU 3468 CACCCGAG GGCTAGCTACAACGA CGGGCAA 4755 297 GGUCGAG G UGCAGGAU 3470 ATCCTGCA GGCTAGCTACAACGA CTCGAGC 4756 299 CUCGAGGU G CAGAGUAC 3471 GCATCCTG GGCTAGCTACAACGA CTCGAGC 4757 304 GGUCGAGA G CAGAGCAA 3473 TTGCTCTG GGCTAGCTACAACGA CTCGCAC 4758 310 GUCGAGA G CAAGGUAC 3473 TTGCTCTG GGCTAGCTACAACGA ACCTGACC 4759 311 GAUGCAGA G CAAGGUAC 3474 GCACCTTG GGCTAGCTACAACGA ACCTTCCT 4761 312 AAGGCAAGG G UCUGCGCU 3475 CAGCACGA GGCTAGCTACAACGA ACCTTCCT 4761 312 AAGGUCGU G CUGGCCU 3477 ACGGCAGG GGCTAGCTACAACGA CACCACCA 4763 328 UGCUGGU G CUGUGGU 3481 CAGAGCAG GGCTAGCTACAACGA CACCACCA 4765 331 UGCCCCUG G UCGCCU 3481 CAGAGCCA GGCTAGCTACAACGA CACCACCA 4767	271	GCUCCCGA G UUCUGGGC	3465	GCCCAGAA	GGCTAGCTACAACGA	TCGGGAGC	4751
285 GGCAUUUU G CCCGGCUU 3468 GAGCCGGG GGTAGCTACAACGA GANATGCC 4754 290 UUCGCCCG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGGCGAA 4756 297 GGCUCGAG G UGCAGGAU 3470 ATCCTGCA GGCTAGCTACAACGA CTCGAGC 4756 299 CUCGAGGU G CAGAGUG 3471 GCATCTG GGCTAGCTACAACGA CCTGCACC 4758 304 GGUGCAGG A UGCAGAC 3472 GCTCTGCA GGCTAGCTACAACGA ATCCTCAC 4759 311 GAUGCAGA G CAAGGUGC 3473 TTGCTCTG GGCTAGCTACAACGA ATCCTCAC 4760 312 AAGGCAGA G CAAGGUGC 3474 GCACCTG GGCTAGCTACAACGA TCTGCTC 4760 316 AGACCAG G CUGCUGC 3475 CAGCAGCA GGCTAGCTACAACGA CTTGCTC 4761 318 ACCAAGGU G CUGCCCU 3476 GCCAGCAG GGCTAGCTACAACGA ACCCTT 4762 321 AAGGUCCU G CUGGCCU 3477 ACGGCAGG GGCTAGCTACAACGA AGCACCT 4763 322 UGCUGGC G UCGCCU 3477 ACGGCAGG GGCTAGCTACAACGA AGCACCA 4765 324 UGCUGGC G UCGCCU 3477 ACGGCAGG GGCTAGCTACAACGA AGCACCA 4765	278	AGUUCUGG G CAUUUCGC	3466	GCGAAATG	GGCTAGCTACAACGA	CCAGAACT	4752
290 UUCGCCCG G CUCGAGGU 3469 ACCTCGAG GGCTAGCTACAACGA CGGGCGAA 4755 297 GGCUCGAG G UGCAGGAU 3470 ATCCTGCA GGCTAGCTACAACGA CTCGAGCC 4756 299 CUCGAGGU G CAGGAUG 3471 GCATCCTG GGCTAGCTACAACGA ACCTCGAG 4757 304 GGUGCAGG A UGCAGAGC 3472 GCTCTGCA GGCTAGCTACAACGA ACCTCGAC 4758 306 UGCAGGAU G CAGAGCAA 3473 TTGCTCTG GGCTAGCTACAACGA ATCCTGCA 4759 311 GAUGCAGA G CAAGGUGC 3475 CAGCAGG GGCTAGCTACAACGA ATCCTGCTC 4761 318 AGCAAG G UGCUGCG 3476 GCCAGCAG GGCTAGCTACAACGA CTTGCTC 4761 321 AAGGUGU G CUGGCCGU 3477 ACGGCAGG GGCTAGCTACAACGA ACCTTGCT 4763 325 UGCUGCU G CUGGCCU 3479 ACGGCAGG GGCTAGCTACAACGA ACCTTGCT 4763 328 UGCUGGCC G UCGCCUG 3479 CAGGGCA GGCTAGCTACAACGA AGCACCA 4765 331 UGCCCCU G UGGCCUG 3481 CACACAGG GGCTAGCTACAACGA AGCGCCA 4766 334 GCCCUGUG G CUCUGGU 3481 CAGAGCCA GGCTAGCTACAACGA AGGGCCA 4766 334 UGCCCCU G UGGGAGA 3481 CACCAGAG GGCTAGCTACAACGA AGGGCCA 4767 346 GCCUGUG G CUCUGGU 3472 ACCCAGAG GGCTAGCTACAACGA AGAGCCA 4769 346 GGCUCUG G CUGGAGAC 3484 GCTCAGCTACAACGA CCCACAGG CTAGCTACAACGA CCGAGGC 4779	280	UUCUGGGC A UUUCGCCC	3467	GGGCGAAA	GGCTAGCTACAACGA	GCCCAGAA	4753
297 GGCUCGAG G UGCAGGAU 3470 ATCCTGCA GGCTAGCTACAACGA CTCGAGCC 4756 299 CUCGAGGU G CAGGAUGC 3471 GCATCCTG GGCTAGCTACAACGA ACCTCGAG 4757 304 GGUGCAGG A UGCAGAGC 3472 GCTCTGCA GGCTAGCTACAACGA ACCTCGAC 4758 306 UGCAGGAU G CAGAGCAA 3473 TTGCTG GGCTAGCTACAACGA ATCCTGCA 4759 311 GAUGCAGA G CAAGGUGC 3474 GCACCTG GGCTAGCTACAACGA ATCGCAC 4760 316 AGAGCAAG G UGCUGCUG 3475 CAGCAGCA GGCTAGCTACAACGA ACCTTTGCT 4761 318 AGCAAGGU G CUGCUGC 3476 GCCAGCAG GGCTAGCTACAACGA ACCTTTGCT 4762 321 AAGGUGCU G CUGCCCUG 3477 ACGGCAGG GGCTAGCTACAACGA ACCACCTT 4763 325 UGCUGGC G UCGCCCUG 3479 CAGGGCGG GGCTAGCTACAACGA ACGACCACT 4763 328 UGCUGGC G UCGCCUG 3479 CAGGGCGA GGCTAGCTACAACGA ACGACCA 4765 331 UGCCCGU G UGGCUCUG 3481 CACACAGG GGCTAGCTACAACGA AGGCCAC 4766 336 GUCCCCU G UGGCUCU 3481 CAGAGCC AGCTAGCTACAACGA AGGCCAC 4767 341 GUGCCUCU G CGGGCC 3481 CAGCAGGG GGCTAGCTACAACGA AGGCCAC 4767 342 GUGCUGG G UGGAGAC 3484 GGCTAGCTACAACGA CACAGGGC AGCAGCA 4769 344 GUGCUGG G UGGAGAC 3485 GGCTAGCTACAACGA CACAGGC ACCAGGGC CACAGGA ACCACAG	285	GGCAUUUC G CCCGGCUC	3468	GAGCCGGG	GGCTAGCTACAACGA	GAAATGCC	4754
299 CUCGAGGU G CAGGAUGC 3471 GCATCCTG GGCTAGCTACAACGA ACCTCGAG 4757 304 GGUGCAGG A UGCAGAGC 3472 GCTTGCA GGCTAGCTACAACGA CCTGCACC 4758 306 UGCAGGAU G CAGAGCAA 3473 TTGCTCTG GGCTAGCTACAACGA CCTGCACC 4758 311 GAUGCAGA G CAAGGUG 3474 GCACCTTG GGCTACAACGA TCTGCATC 4760 316 AGAGCAAG G UGCUGGC 3475 CACCAGCA GGCTAGCTACAACGA CTTGCTC 4761 318 ASCAAGGU G CUGGCCGU 3476 GCCAGCAG GGCTAGCTACAACGA ACCTTGCT 4762 321 AAGGUGCU G CUGGCCGU 3476 GCCAGCAG GGCTAGCTACAACGA ACCACACA 4764 322 UGCUGCU G CUGGCCU 3479 CAGGGGGA GGCTAGCTACAACGA ACCACACACA 4765 331 UGCCGCU G UGGCCUU G 3480 CCACAGGG GGCTAGCTACAACGA ACCACACA 4766 334 GUCGCCU G UGGGAGA 3481 CACACAGGG GGCTAGCTACAACGA AGAGCCA 4767 344 GUGGCUCU G CUUGGGA 3481 CTCCACG GGCTAGCTACAACGA AGAGCCA 4769 346 GGCUUGC G UGGAGAC 3484 GGCCCGGG 3485 GCCCCGGG GCTTAGCTACAACGA CCAGGCC 4770	290	UUCGCCCG G CUCGAGGU	3469	ACCTCGAG	GGCTAGCTACAACGA	CGGGCGAA	4755
304 GGUGCAGG A UGCAGAGC 3472 GCTCTGCA GGCTAGCTACAACA CCTGCACC 4758 306 UGCAGGAU G CAGAGCAA 3473 TTGCTCTG GGCTAGCTACAACGA ATCCTGCA 4759 311 GAUGCAGGA G CAAGGUGC 3474 GCACCTTG GGCTAGCTACAACGA ATCCTGCA 4769 316 AGAGCAAG G UGCUGCUG 3475 CAGCAGCA GGCTAGCTACAACGA CTTGCTCT 4761 318 AGCAAGGU G CUGCUGC 3476 GCCAGCAG GGCTAGCTACAACGA CTTGCTCT 4761 318 AGCAAGGU G CUGCUGC 3477 ACGGCCAG GGCTAGCTACAACGA ATCCTTGCT 4762 321 AAGGUGCU G CUGGCCGU 3477 ACGGCCAG GGCTAGCTACAACGA AGCACCTT 4763 322 UGCUGGCU G CCGUGGCC 3478 GGCGAGCG GGCTAGCTACAACGA AGCACCTT 4763 328 UGCUGGCC G UCGCCCUG 3479 CAGGGCGA GGCTAGCTACAACGA AGCACCT 4764 328 UGCUGGCC G UCGCCCUG 3479 CAGGGCGA GGCTAGCTACAACGA AGCACCA 4766 331 UGGCCGUC G CCCUGUGG 3480 CCACAGGG GGCTAGCTACAACGA GACAGGCC 4766 332 UGCUGCCU G UGGCCUG 3481 CAGAGCCA GGCTAGCTACAACGA AGGGCCA 4766 333 GCCCUGUG G CUCUGCGU 3482 ACGCAGGG GGCTAGCTACAACGA AGGGCCA 4766 334 GUGGCCCU G UGGCCCU 3482 ACGCAGGG GGCTAGCTACAACGA AGGGCCA 4766 344 GUGGCUCU G CUGUGGAGA 3483 TCTCCACG GGCTAGCTACAACGA AGGGCCA 4769 346 GGCUCUGC G UGGAGACC 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCA 4769 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA AGAGCCA 4770 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA AGAGCCA 4770 353 AGACCCGG G CCCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CCCACGGC 4771 354 AGACCCGG G CCCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA AGAGCCA 4772 355 UGCGUUU G UGGUUU G 3487 CACAGAGG GGCTAGCTACAACGA AGAGCCA 4772 361 CCCGGGCC G CUCUGUG 3487 CACAGAG GGCTAGCTACAACGA AGAGCCA 4773 371 CUCUGUGG G UUUGCCUA 3489 CACACGAG GGCTAGCTACAACGA AGAGCCA 4776 382 UCUCUUG A UCUCCCUA 3493 TGGGCAAA GGCTAGCTACAACGA AGACCAC 4776 380 UUUGCCUA G UGUUUCU 3491 GAGAAACA GGCTAGCTACAACGA AGACCAC 4776 381 UUUGCCUA G UGUUCUCU 3491 GAGAAACA GGCTAGCTACAACGA ACCACAGAG 4773 372 CUCUGUG A UCUCCCUA 3493 TGGGCAAA GGCTAGCTACAACGA ACTAGGCA 4776 382 UCUCUUG A UCUCCCUA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCA 4776 382 UCUCUUG A UCUCCCUA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCA 4776 400 UUAGCCUA G CUAACAAA 3495 TTGTTTTT GGCTAGCTACAACGA ACTAGGCA 4778 400 UUAGCCUA G CUAACAAA 3495 TTG	297	GGCUCGAG G UGCAGGAU	3470	ATCCTGCA	GGCTAGCTACAACGA	CTCGAGCC	4756
306 UGCAGGAU G CAGAGCAA 3473 TTGCTCTG GGCTAGCTACAACGA ATCCTGCA 4759	299	CUCGAGGU G CAGGAUGC	3471	GCATCCTG	GGCTAGCTACAACGA	ACCTCGAG	4757
311 GAUGCAGA G CAAGGUGC 3474 GCACCTTG GGCTAGCTACAACGA TCTGCATC 4760 316 AGAGCAAG G UGCUGGC 3475 CAGCAGCA GGCTAGCTACAACGA CTTGCTCT 4761 318 AGCAAGGU G CUGCUGGC 3476 GCCAGCAG GGCTAGCTACAACGA ACCTTGCT 4762 321 AAAGGUGCU G CUGGCCGU 3477 ACGGCCAG GGCTAGCTACAACGA ACCTTGCT 4763 322 UGCUGCUG G CCGUCGCC 3478 GGCGACGG GGCTAGCTACAACGA ACCACCTT 4763 325 UGCUGCUG G CCGUCGCC 3479 CAGGGCGA GGCTAGCTACAACGA CACCAGCA 4764 328 UGCUGCCC G UCGCCCUG 3489 CACAGGG GGCTAGCTACAACGA GACCACCAC 4766 331 UGGCCGUC G CCCUGUGG 3480 CCACAGGG GGCTAGCTACAACGA GACGGCCA 4766 335 GUCGCCCU G UGGCCCUG 3481 CACAGGCA GGCTAGCTACAACGA AGGGCCAC 4767 339 GCCCUGUG G CUCUGCGU 3482 ACGCAGAG GGCTAGCTACAACGA AGGGCCAC 4767 3344 GUGGCUCU G CGUGGAGA 3484 GTCTCCAG GGCTAGCTACAACGA AGAGCCAC 4769 3466 GGCUCUGC G UGGAGAC 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCAC 4769 3466 GGCUCUGC G UGGAGAC 3485 GGCCCGGG GGCTAGCTACAACGA AGAGCCAC 4770 352 GCGUGGAG A CCGGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCGG G CCGCCUCU 3486 ACAGGCGG GGCTAGCTACAACGA CCCACGG 4771 358 AGACCGG G CCGCCUCU 3486 ACAGGCGG GGCTAGCTACAACGA CCCACGG 4771 357 CCGCCUCU G UGGGUUU G 3487 CACAGAGG GGCTAGCTACAACGA AGAGCCAC 4776 371 CUCUGUGG G UUUCCUA 3489 TAGGCAAA GGCTAGCTACAACGA AGAGCCAC 4776 371 CUCUGUGG G UUUUCCUA 3491 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA 3491 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA 400 UUUUCUU 3492 AAGAGCAA GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA 400	304	GGUGCAGG A UGCAGAGC	3472	GCTCTGCA	GGCTAGCTACAACGA	CCTGCACC	4758
316	306	UGCAGGAU G CAGAGCAA	3473	TTGCTCTG	GGCTAGCTACAACGA	ATCCTGCA	4759
318 AGCAAGGU G CUGCUGGC 3476 GCCAGCAG GGCTAGCTACAACGA ACCTTGCT 4762 321 AAGGUGCU G CUGGCCGU 3477 ACGGCCAG GGCTAGCTACAACGA AGCACCTT 4763 325 UGCUGCUG G CCGUCGCC 3478 GGCGAGCAG GGCTAGCTACAACGA AGCACCTT 4763 328 UGCUGGCC G UCGCCCUG 3479 CAGGGCGA GGCTAGCTACAACGA GGCCAGCA 4764 328 UGCUGGCC G UCGCCCUG 3480 CCACAGGG GGCTAGCTACAACGA GACGGCCA 4766 331 UGGCCGUC G UGGCUCUG 3481 CAGAGCCA GGCTAGCTACAACGA AGCGGCCA 4767 339 GCCCUGUG G CUCUGCGU 3482 ACGCAGAG GGCTAGCTACAACGA AGGGCGAC 4768 344 GUGGCCU G UGGAGAA 3483 TCTCCACG GGCTAGCTACAACGA AGGGCCAC 4769 344 GUGGCUCU G CGUGGAGA 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCAC 4769 346 GGCCUGUC G UGGAGAAC 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCAC 4769 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA ACCAGGGC 4770 358 AGACCCGG G CCGCCCCUU 3486 AGAGGCGG GGCTAGCTACAACGA CCGAGGCC 4771 358 AGACCCGG G CCGCCCCUU 3486 AGAGGCGG GGCTAGCTACAACGA CCGAGGCC 4772 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA AGAGCCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA AGAGCCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA ACACCCAC 4776 380 UUUGCCUA GUGUUUCU 3491 GAGAACA GGCTAGCTACAACGA ACACCCAC 4776 380 UUUGCCUA GUGUUCUC 3491 GAGAAACA GGCTAGCTACAACGA ACACCCAC 4776 380 UUUGCCUA GUGUUCUC 3491 GAGAAACA GGCTAGCTACAACGA ACACCACAC 4776 380 UUUGCCUA GUGUUCUC 3491 AAAGAGAA GGCTAGCTACAACGA ACACCACAC 4776 380 UUUGCCUA GUGUUCUC 3491 ACAGAGAA GGCTAGCTACAACGA ACACCACAC 4776 380 UUUGCCUA AUUACAAA 3496 TTTGTATG GGCTAGCTACAACGA ACACCACAC 4776 4779 4770 4	311	GAUGCAGA G CAAGGUGC	3474	GCACCTTG	GGCTAGCTACAACGA	TCTGCATC	4760
321 AAGGUGCU G CUGGCCGU 3477 ACGGCCAG GGCTACCTACAACGA AGCACCTT 4763 325 UGCUGCUG G CCGUCGC 3478 GGCGACGG GGCTAGCTACAACGA AGCACCTT 4764 328 UGCUGGCC G UCGCCCUG 3479 CAGGGCAG GGCTAGCTACAACGA GGCCAGCA 4765 331 UGGCCGCC G CCCUGUGG 3480 CCACAGGG GGCTAGCTACAACGA GACGGCCA 4766 336 GUCGCCCU G UGGCUCUG 3481 CAGAGCCA GGCTAGCTACAACGA GACGGCCA 4767 337 GCCCUGUG G CUCUGCGU 3481 CAGAGCCA GGCTAGCTACAACGA AGGGCGA 4767 348 GUGGCCUCU G UGGCGU 3482 ACGCAGAG GGCTAGCTACAACGA CACAGGGC 4767 349 GCCCUGUG G CUCUGCGU 3482 ACGCAGAG GGCTAGCTACAACGA CACAGGGC 4769 346 GGCUCUG G GUGGAGA 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCA 4769 346 GGCUCUG G UGGAGAC 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCA 4769 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCGCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CCCGGGTCT 4772 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA CCCGGGTCT 4772 371 CUCUGUGG G UUGGCUUA 3488 CAAACCCA GGCTAGCTACAACGA GGCCCGGG 4774 371 CUCUGUGG G UUUGCCUA 3488 CAAACCCA GGCTAGCTACAACGA AGAGCCG 4776 380 UUUGCCUA G UGUUUCU 3491 GAGAAACA GGCTAGCTACAACGA CACACAGA 4776 381 UUUGCCUA G UGUUUCU 3491 GAGAAACA GGCTAGCTACAACGA CACACAGA 4777 382 UGCCUAGU G UUUCCCUU 3492 AAGAGAAA GGCTAGCTACAACGA CACACAGA 4777 392 UUCUCUUG A UCUGCCCA 3491 TGGGCAAA GGCTAGCTACAACGA ACACCAA CACAGAGA 4777 392 UUCUCUUG A UCUGCCCA 3491 TGGGCAAA GGCTAGCTACAACGA ACAGAGAA 4777 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA ACAGAGAA 4777 397 CUUGCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA ACAGAGAA 4778 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA CAGAGAAA 4778 408 GCUCAGC A UACAAAAA 3497 TTTTTTTT GGCTAGCTACAACGA CTAGGCCA 4781 409 GGCUCAGC A UACAAAAA 3497 TTTTTTT GGCTAGCTACAACGA CTAGGCCA 4781 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTT GGCTAGCTACAACGA CTTGGCCAG 4781 412 AAAAAGA A CAUACAAU 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTT 4786 421 AAAAAGA A CAUACAAU 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTT 4786 422 AAAGACAU A CUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA TTGTTTT 4786 423 AAAGACAU A CUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA TTGTTTT 4786 424 AAAAAGCA A UAC	316	AGAGCAAG G UGCUGCUG	3475	CAGCAGCA	GGCTAGCTACAACGA	CTTGCTCT	4761
325 UGCUGCUG CCGUCGCC 3478 GGCGACGG GGCTAGCTACAACGA CAGGACA 4764 328 UGCUGGCC UCGCCCUG 3479 CAGGGCGA GGCTAGCTACAACGA GGCCAGCA 4765 331 UGGCCGUC GCCUGUGG 3480 CCACAGGG GGCTAGCTACAACGA AGGGCGCA 4766 339 GCCCUGUG GUCUGCGU 3481 CAGAGGCA GGCTAGCTACAACGA ACACAGGC 4768 344 GUGGAGA 3482 ACGCCAGG GGCTAGCTACAACGA ACACAGGC 4768 346 GGCCUCUG GUGGAGA 3484 GGTCTCCA GGCTAGCTACAACGA ACAGAGCC 4770 352 GCGUGGG UGGAGACC 3485 GGCCCGGG GGCTAGCTACAACGA CCCACGG 4771 351 CCCGGGCC CCUCUGU 3486 AGAGGCGG GGCTAGCTACAACGA CCCACGG 4771 361 CCCGGGCC GCUCUGU 3486 CAACAGAG GGCTAGCTACAACGA AGAGGCGG 4771 367 CCCGGGCC GUGGGUU	318	AGCAAGGU G CUGCUGGC	3476	GCCAGCAG	GGCTAGCTACAACGA	ACCTTGCT	4762
328 UGCUGGCC G UCGCCUG 3479 CAGGGCA GGCTAGCTACAACGA GGCCAGCA 4765 331 UGGCCGUC G CCCUGUGG 3480 CCACAGGG GGCTAGCTACAACGA GACGGCCA 4766 336 GUCGCCCU G UGGCUCUG 3481 CAGAGCCA GGCTAGCTACAACGA AGGGCGAC 4767 339 GCCCUGUG G CUCUGCGU 3482 ACGCAGAG GGCTAGCTACAACGA AGGACCAC 4768 344 GUGCUCUG G UGGAGAC 3483 TCTCCACG GGCTAGCTACAACGA GCAGAGCC 4779 346 GGCUCUGC G UGGAGAC 3484 GGTCTCCA GGCTAGCTACAACGA GCAGAGCC 4770 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCCUCUU 3486 AGAGGCGG GGCTAGCTACAACGA CCGAGGTC 4772 361 CCCGGGCC G CCUCUUGU 3487 CACAGAGG GGCTAGCTACAACGA AGGCCGGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA AGACCACA 4776 380 UUUGCCUA 3491 GAGAAACA GGCTAGCTACAACGA AAACCACA 4776 381 UUCCUCUA G UUUCUCU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 <td>321</td> <td>AAGGUGCU G CUGGCCGU</td> <td>3477</td> <td>ACGGCCAG</td> <td>GGCTAGCTACAACGA</td> <td>AGCACCTT</td> <td>4763</td>	321	AAGGUGCU G CUGGCCGU	3477	ACGGCCAG	GGCTAGCTACAACGA	AGCACCTT	4763
331 UGGCCGUC G CCCUGUGG 3480 CCACAGGG GGCTAGCTACAACGA GACGGCCA 4766 336 GUCGCCCU G UGGCUCUG 3481 CAGAGCCA GGCTAGCTACAACGA AGGGCGAC 4767 339 GCCCUGUG G CUCUGCGU 3482 ACGCAGAG GGCTAGCTACAACGA AGGGCGAC 4768 344 GUGGCUCU G CGUGGAGA 3483 TCTCCACG GGCTAGCTACAACGA AGAGCCAC 4769 346 GGCUCUGC G UGGAGAC 3484 GGTCTCCA GGCTAGCTACAACGA GCAGAGCC 4770 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCGCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CTCCACGC 4771 351 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA CGCCGGG 4771 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA CGCCCGG 4773 361 CCCGGGCC G CUCUGUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGCCGG 4773 361 CCCGGGGC G CUUGUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGCCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA ACACACAC 4776 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA ACACCAC 4776 380 UUUGCCUA G UGUUUCCU 3491 GAGAAACA GGCTAGCTACAACGA AAACCCAC 4776 381 UUCUCUUG A UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA AAACCCAC 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA AGATCAAG 4780 409 GGCUCAGC A UACAAAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCT 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTTTT GGCTAGCTACAACGA ATGCTGAG 4784 411 CUCAGCAU A CAAAAAAA 3497 TTTTTTTT GGCTAGCTACAACGA ATGCTGAG 4784 412 ACAAAAAG A CAUACAUA 3500 TTTAAGTA GGCTAGCTACAACGA ATGCTGAGA 4784 413 ACAAAAAG A CAUACAAU 3501 TATAAGTA GGCTAGCTACAACGA ATGCTTTTT 4786 423 AAAGACAU A CUUACAA 3500 TTTAAGTA GGCTAGCTACAACGA ATGCTTTTT 4786 424 ACAUACUU A CAAUAAAG 3500 TTTAAGTA GGCTAGCTACAACGA ATGTCTTT 4787 425 ACAUACUU A CAAUAAAG 3500 TTTAAGTA GGCTAGCTACAACGA ATGTCTTT 4786 426 CAAUUAAC A UACAACU 3501 AGCCTTAA GGCTAGCTACAACGA CTTATTTG 4789 436 CAAUUAAC A UACAACU 3501 AGCCTTAA GGCTAGCTACAACGA CTTATTG 4789 437 ACAUACUU A CAAUAACA 3501 TGTAATTG GGCTAGCTACAACGA	325	UGCUGCUG G CCGUCGCC	3478	GGCGACGG	GGCTAGCTACAACGA	CAGCAGCA	4764
336 GUCGCCU G UGGCUCUG 3481 CAGAGCCA GGCTAGCTACAACGA AGGCGAC 4767 339 GCCCUGUG G CUCUGCGU 3482 ACGCAGAG GGCTAGCTACAACGA CACAGGGC 4768 344 GUGGCUCU G CGUGGAGA 3483 TCTCCACG GGCTAGCTACAACGA AGAGCCAC 4769 346 GGCUCUGC G UGGAGACC 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCAC 4770 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CCGCGTCT 4772 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA GCCCGGG 4773 367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA GGCCCGGG 4773 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA AGAGGCGG 4776 375 GUGGGUUU G CCUAGUGU 3491 GAGAAACA GGCTAGCTACAACGA AACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA AACCCAC 4776 381 UUUGCCUA G UGUUUCUCU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCAA 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCAA 4777 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCA 4778 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGGG GGCTAGCTACAACGA CAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA CTGGGCAG 4781 409 GGCUCAGC A UACAAAAA 3496 TTTGTATG GGCTAGCTACAACGA ATGCCTA 4782 411 CUCAGCAU A CAAAAAGA 3497 TTTTTTTT GGCTAGCTACAACGA ATGCTAGA 4784 412 ACAAAAAGA A CAUACAAA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTT 4785 421 AAAAAGACA A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA ATGCTTTT 4785 422 ACAAACUU A CAAUCAAA 3501 TGTAAGTA GGCTAGCTACAACGA ATGCTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4786 424 AAAAAGAC A UACUUACA 3501 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4786 425 AAAGACAU A CUUACAAU 3501 TGTAAGTA GGCTAGCTACAACGA CTTTTTTG 4786 426 CAAUCUU A CAAUUACA 3501 TGTAAGTA GGCTAGCTACAACGA CTTTTTTT 4786 427 ACAUACUU A CAAUUACA 3501 TGTAAGTA GGCTAGCTACAACGA CTTTATTG 4789 436 CAAUUAAG G CUAACAC 3503 AGCCTTAA GGCTAGCTACAAC	328	UGCUGGCC G UCGCCCUG	3479	CAGGGCGA	GGCTAGCTACAACGA	GGCCAGCA	4765
339 GCCCUGUG G CUCUGCGU 3482 ACGCAGAG GGCTAGCTACAACGA CACAGGC 4768 344 GUGGCUCU G CGUGGAGA 3483 TCTCCACG GGCTAGCTACAACGA AGAGCCAC 4769 346 GGCUCUGC G UGGAGACC 3484 GGTCTCCA GGCTAGCTACAACGA AGAGCCAC 4770 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCGCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CTCCACGC 4771 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA CCGGGTCT 4772 361 CCCGGGCC G CCUCUGUG 3488 CAAACCCA GGCTAGCTACAACGA GGCCCGGG 4773 367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGGCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA AGAGGCGG 4775 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA ACACCAC 4776 380 UUUGCCUA G UGUUUCUCU 3491 GAGAAACA GGCTAGCTACAACGA TAGGCAAA 4777 382 UGCCUAGU G UUUUCUCU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4777 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA CAAGAGAA 4779 397 CUGCCCAG G CUCAGCAU 3495 ATGCTGGG GGCTAGCTACAACGA AGATCAAG 4780 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCAG 4781 407 CAGGCUCA G CAUACAAA 3497 TTTTTGTAT GGCTAGCTACAACGA ATGAGCCT 4783 411 CUCAGCAU A CAAAAAAA 3497 TTTTTTGTA GGCTAGCTACAACGA ATGAGCCT 4784 412 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTCAA 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTCAAG 4784 419 ACAAAAAG A CAUACUAA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTCAAC 4785 421 AAAAAGAC A UACUACAA 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUACAA 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUACA 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTTA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTTA GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA CTTAATTG 4790	331	UGGCCGUC G CCCUGUGG	3480	CCACAGGG	GGCTAGCTACAACGA	GACGGCCA	4766
344 GUGGCUCU G CGUGGAGA 3483 TCTCCACG GGCTAGCTACAACGA AGAGCCAC 4769 346 GGCUCUGC G UGGAGACC 3484 GGTCTCCA GGCTAGCTACAACGA GCAGAGCC 4770 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCGCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CTCCACGC 4771 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA CCGGGTCT 4772 361 CCCGGGCC G CCUCUGUG 3488 CAAACCCA GGCTAGCTACAACGA GGCCCGGG 4773 367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGGCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA ACACCAC 4776 375 GUGGGUUU G CCUAGUGU 3491 GAGAAACA GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUCU 3491 GAGAAACA GGCTAGCTACAACGA ACACCAC 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCAA 4777 392 UUCUCUUG A UCUUCCUU 3494 AGCCTAGG GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGG GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGG GGCTAGCTACAACGA CAAGAGAA 4779 407 CAGGCUCA G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA AGATCAAC 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCAG 4781 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTAT GGCTAGCTACAACGA ATGAGCCT 4782 411 CUCAGCAU A CAAAAAAA 3498 TCTTTTTG GGCTAGCTACAACGA ATGACCAC 4783 411 CUCAGCAU A CAAAAAAA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTCAGA 4784 412 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTCAGA 4784 413 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTCAGA 4784 414 ACAAAAAG A CAUACUUA 3500 TGTAAGTA GGCTTACAACGA ATGCTCTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGCTCTT 4787 427 ACAUACUU A CAAUACA 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUACA 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTA GGCTAGCTACAACGA TGTAAGTA 4789	336	GUCGCCCU G UGGCUCUG	3481	CAGAGCCA	GGCTAGCTACAACGA	AGGGCGAC	4767
346 GGCUCUGC G UGGAGACC 3484 GGTCTCCA GGCTAGCTACAACGA GCAGAGCC 4770 352 GCGUGGAG A CCCGGGCC 3485 GGCCCGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCGCCUCU 3486 AGAGGCG GGCTAGCTACAACGA CTCCACGC 4771 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA CCGGGTCT 4772 367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGGCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCAACGA CCACAGAG 4775 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA AAACCCAC 4776 382 UGCCUAGU G UUUUCUCU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA AGATCAAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA ATGCTGAG 4784 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 412 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3500 TGTAAGTA GGCTAGCTACAACGA ATGCTTTTT 4786 423 AAAGACA A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA ATGTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA ATGTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA ATGTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4789	339	GCCCUGUG G CUCUGCGU	3482	ACGCAGAG	GGCTAGCTACAACGA	CACAGGGC	4768
352 GCGUGGAG A CCCGGGCC 3485 GGCCCGGG GGCTAGCTACAACGA CTCCACGC 4771 358 AGACCCGG G CCGCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CCGGGTCT 4772 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA GGCCCGGG 4773 367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGGCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA CCACAGAG 4775 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA ACCCAC 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTAT GGCTAGCTACAACGA TGAGCCTG 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA CTTTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGCTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTTA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTTA GGCTAGCTACAACGA CTTAATTG 4790 440 UAAAGGCUA A UACAACCU 3505 GAGTTGTA GGCTACCAACGA TGACCTTA 4791	344	GUGGCUCU G CGUGGAGA	3483	TCTCCACG	GGCTAGCTACAACGA	AGAGCCAC	4769
358 AGACCCGG G CCGCCUCU 3486 AGAGGCGG GGCTAGCTACAACGA CCGGGTCT 4772 361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA GGCCCGGG 4773 367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGGCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA CCACAGAG 4775 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAACA GGCTAGCTACAACGA TAGGCAAA 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACCCAC 4776 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA ACTAGGCA 4778 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA CAGAGAAA 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGCTTTT 4787 427 ACAUACUU A CAAUAAAG 3502 CTTAATTG GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA TTGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3505 GAGTTGTA GGCTAGCTACAACGA TTGTAAGTA 4789 440 UAAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4790	346	GGCUCUGC G UGGAGACC	3484	GGTCTCCA	GGCTAGCTACAACGA	GCAGAGCC	4770
361 CCCGGGCC G CCUCUGUG 3487 CACAGAGG GGCTAGCTACAACGA GGCCCGGG 4773 367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGGCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA CCACAGAG 4775 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA TAGGCAAA 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA CAAGAGAA 4779 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CAGGCACGA 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA ATGCTGAGC 4784 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA ATGCTTATT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGCTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGCTCTT 4787 427 ACAUACUU A CAAUAAGA 3502 CTTAATTG GGCTAGCTACAACGA ATGTCTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUACAG 3502 CTTAATTG GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUACAGCU 3503 AGCCTTAA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTAATTA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTAATTA GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA CTTAATTG 4790	352	GCGUGGAG A CCCGGGCC	3485	GGCCCGGG	GGCTAGCTACAACGA	CTCCACGC	4771
367 CCGCCUCU G UGGGUUUG 3488 CAAACCCA GGCTAGCTACAACGA AGAGGCGG 4774 371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA CCACAGAG 4775 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA TAGGCAAA 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA ATGCTGAG 4784 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTGAG 4786 423 AAAGACAU A CUUACAAU 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA TTAAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	358	AGACCCGG G CCGCCUCU	3486	AGAGGCGG	GGCTAGCTACAACGA	CCGGGTCT	4772
371 CUCUGUGG G UUUGCCUA 3489 TAGGCAAA GGCTAGCTACAACGA CCACAGAG 4775 375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA TAGGCAAA 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTT 4786 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA ATGTCTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA ATGTCTTT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	361	CCCGGGCC G CCUCUGUG	3487	CACAGAGG	GGCTAGCTACAACGA	GGCCCGGG	4773
375 GUGGGUUU G CCUAGUGU 3490 ACACTAGG GGCTAGCTACAACGA AAACCCAC 4776 380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA TAGGCAAA 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGCTTTT 4787 427 ACAUACUU A CAAUAAG 3502 CTTAATTG GGCTAGCTACAACGA AGGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTAATTA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3505 GAGTTGTA GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	367	CCGCCUCU G UGGGUUUG	3488	CAAACCCA	GGCTAGCTACAACGA	AGAGGCGG	4774
380 UUUGCCUA G UGUUUCUC 3491 GAGAAACA GGCTAGCTACAACGA TAGGCAAA 4777 382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACAA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA CTTAATTG 4789 436 CAAUUAAG G CUAAUACA 3504 TGTAATTA GGCTAGCTACAACGA CTTAATTG 4780 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	371	CUCUGUGG G UUUGCCUA	3489	TAGGCAAA	GGCTAGCTACAACGA	CCACAGAG	4775
382 UGCCUAGU G UUUCUCUU 3492 AAGAGAAA GGCTAGCTACAACGA ACTAGGCA 4778 392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACAA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTAATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	375	GUGGGUUU G CCUAGUGU	3490	ACACTAGG	GGCTAGCTACAACGA	AAACCCAC	4776
392 UUCUCUUG A UCUGCCCA 3493 TGGGCAGA GGCTAGCTACAACGA CAAGAGAA 4779 396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	380	UUUGCCUA G UGUUUCUC	3491	GAGAAACA	GGCTAGCTACAACGA	TAGGCAAA	4777
396 CUUGAUCU G CCCAGGCU 3494 AGCCTGGG GGCTAGCTACAACGA AGATCAAG 4780 402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	382	UGCCUAGU G UUUCUCUU	3492	AAGAGAAA	GGCTAGCTACAACGA	ACTAGGCA	4778
402 CUGCCCAG G CUCAGCAU 3495 ATGCTGAG GGCTAGCTACAACGA CTGGGCAG 4781 407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	392	UUCUCUUG A UCUGCCCA	3493	TGGGCAGA	GGCTAGCTACAACGA	CAAGAGAA	4779
407 CAGGCUCA G CAUACAAA 3496 TTTGTATG GGCTAGCTACAACGA TGAGCCTG 4782 409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	396	CUUGAUCU G CCCAGGCU	3494	AGCCTGGG	GGCTAGCTACAACGA	AGATCAAG	4780
409 GGCUCAGC A UACAAAAA 3497 TTTTTGTA GGCTAGCTACAACGA GCTGAGCC 4783 411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTAATTG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	402	CUGCCCAG G CUCAGCAU	3495	ATGCTGAG	GGCTAGCTACAACGA	CTGGGCAG	4781
411 CUCAGCAU A CAAAAAGA 3498 TCTTTTTG GGCTAGCTACAACGA ATGCTGAG 4784 419 ACAAAAAG A CAUACUUA 3499 TAAGTATG GGCTAGCTACAACGA CTTTTTGT 4785 421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	407	CAGGCUCA G CAUACAAA	3496	TTTGTATG	GGCTAGCTACAACGA	TGAGCCTG	4782
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421 AAAAAGAC A UACUUACA 3500 TGTAAGTA GGCTAGCTACAACGA GTCTTTTT 4786 423 AAAGACAU A CUUACAAU 3501 ATTGTAAG GGCTAGCTACAACGA ATGTCTTT 4787 427 ACAUACUU A CAAUUAAG 3502 CTTAATTG GGCTAGCTACAACGA AAGTATGT 4788 430 UACUUACA A UUAAGGCU 3503 AGCCTTAA GGCTAGCTACAACGA TGTAAGTA 4789 436 CAAUUAAG G CUAAUACA 3504 TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCAACGA TAGCCTTA 4791	411	CUCAGCAU A CAAAAAGA	3498	TCTTTTTG	GGCTAGCTACAACGA	ATGCTGAG	4784
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436 CAAUUAAG G CUAAUACA 3504 . TGTATTAG GGCTAGCTACAACGA CTTAATTG 4790 440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	430	UACUUACA A UUAAGGCU	3503	AGCCTTAA	GGCTAGCTACAACGA	TGTAAGTA	
440 UAAGGCUA A UACAACUC 3505 GAGTTGTA GGCTAGCTACAACGA TAGCCTTA 4791	436	CAAUUAAG G CUAAUACA	3504 .	TGTATTAG	GGCTAGCTACAACGA	CTTAATTG	
A CONTRACTOR OF THE CONTRACTOR	440	UAAGGCUA A UACAACUC	3505	GAGTTGTA	GGCTAGCTACAACGA	TAGCCTTA	
	442	AGGCUAAU A CAACUCUU	3506	AAGAGTTG	GGCTAGCTACAACGA	ATTAGCCT	

	C			127		
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454	CUCUUCAA A UUACUUGC	3508		GGCTAGCTACAACGA		4794
457	UUCAAAUU A CUUGCAGG	3509		GGCTAGCTACAACGA		4795
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476	ACAGAGGG A CUUGGACU	3512	AGTCCAAG	GGCTAGCTACAACGA	CCCTCTGT	4798
482	GGACUUGG A CUGGCUUU	3513	AAAGCCAG	GGCTAGCTACAACGA	CCAAGTCC	4799
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529	GGGUGGAG G UGACUGAG	3523	CTCAGTCA	GGCTAGCTACAACGA	CTCCACCC	4809
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539	GACUGAGU G CAGCGAUG	3526	CATCGCTG	GGCTAGCTACAACGA	ACTCAGTC	4812
542	UGAGUGCA G CGAUGGCC	3527	GGCCATCG	GGCTAGCTACAACGA	TGCACTCA	4813
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564	UGUAAGAC A CUCACAAU	3532		GGCTAGCTACAACGA		4818
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580	UUCCAAAA G UGAUCGGA	3535		GGCTAGCTACAACGA		4821
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590	GAUCGGAA A UGACACUG	3537	CAGTGTCA	GGCTAGCTACAACGA	TTCCGATC	4823
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634	CUGACUUG G CCUCGGUC	3547		GGCTAGCTACAACGA		4833
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643	CCUCGGUC A UUUAUGUC	3549		GGCTAGCTACAACGA		4835
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649	UCAUUUAU G UCUAUGUU	3551		GGCTAGCTACAACGA		4837
653	UUAUGUCU A UGUUCAAG	3552		GGCTAGCTACAACGA		4838
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662	UGUUCAAG A UUACAGAU	3554		GGCTAGCTACAACGA	· · · · · · · · · · · · · · · · · · ·	4840
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669	GAUUACAG A UCUCCAUU	3556		GGCTAGCTACAACGA		
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679	CUCCAUUU A UUGCUUCU	3558				4843
682	CAUUUAUU G CUUCUGUU	3559		GGCTAGCTACAACGA		4844
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763	UCGGGUCC A UUUCAAAU			GGCTAGCTACAACGA		4866
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	AAAUCUCA A CGUGUCAC	3582		GGCTAGCTACAACGA		4868
	AUCUCAAC G UGUCACUU	3583		GGCTAGCTACAACGA		
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842		3596		GGCTAGCTACAACGA		4882
	CUGGGACA G CAAGAAGG	3597		GGCTAGCTACAACGA		4883
	CAAGAAGG G CUUUACUA AGGGCUUU A CUAUUCCC	3598		GGCTAGCTACAACGA		4884
		3599		GGCTAGCTACAACGA		4885
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872	UCCCAGCU A CAUGAUCA	3602		GGCTAGCTACAACGA		4888
874	CCAGCUAC A UGAUCAGC	3603		GGCTAGCTACAACGA		4889
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881	CAUGAUCA G CUAUGCUG			GGCTAGCTACAACGA		4891
884	GAUCAGCUAL C CUCCCAUG	3606		GGCTAGCTACAACGA		4892
886	UCAGCUAU G CUGGCAUG	3607		GGCTAGCTACAACGA		4893
890	CUAUGCUG G CAUGGUCU	3608		GGCTAGCTACAACGA		4894
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-	AAAAAUUA A UGAUGAAA	3614	<u> </u>	000
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970	GGUAUAGG A UUUAUGAU	3630	ATCATAAA GGCTAGCTACAACGA CCTATACC 49	16
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977	GAUUUAUG A UGUGGUUC	3632	GAACCACA GGCTAGCTACAACGA CATAAATC 49	18
979	UUUAUGAU G UGGUUCUG	3633	CAGAACCA GGCTAGCTACAACGA ATCATAAA 49	19
982	AUGAUGUG G UUCUGAGU	3634	ACTCAGAA GGCTAGCTACAACGA CACATCAT 49	20
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998	UCCGUCUC A UGGAAUUG	3637	CAATTCCA GGCTAGCTACAACGA GAGACGGA 49	23
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1015	AACUAUCU G UUGGAGAA	3641	<u> </u>	27
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1045	AUUGUACA G CAAGAACU	3647		33
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	AACUGGGA A UACCCUUC	3655		41
	CUGGGAAU A CCCUUCUU	3656		42
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		3664		50
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1172	AUUUUUGA G CACCUUAA	3670	TTAAGGTG GGCTAGCTACAACGA TCAAAAAT 4956
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1212	GACCAAGG A UUGUACAC	3680	GTGTACAA GGCTAGCTACAACGA CCTTGGTC 4966
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├ ──	UCCAGUGG G CUGAUGAC	3689	GTCATCAG GGCTAGCTACAACGA CCACTGGA 4975
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——	CUUUUGUU G CUUUUGGA	3701	TCCAAAAG GGCTAGCTACAACGA AACAAAAG 4987
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	GAAGUGGC A UGGAAUCU	3704	AGATTCCA GGCTAGCTACAACGA GCCACTTC 4990
1314	GGCAUGGA A UCUCUGGU	3705	ACCAGAGA GGCTAGCTACAACGA TCCATGCC 4991
	AAUCUCUG G UGGAAGCC	3706	GGCTTCCA GGCTAGCTACAACGA CAGAGATT 4992
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1333	AAGCCACG G UGGGGGAG	3709	CTCCCCCA GGCTAGCTACAACGA CGTGGCTT 4995
1341	GUGGGGGA G CGUGUCAG	3710	CTGACACG GGCTAGCTACAACGA TCCCCCAC 4996
1343	GGGGGAGC G UGUCAGAA	3711	TTCTGACA GGCTAGCTACAACGA GCTCCCCC 4997
1345	GGGAGCGU G UCAGAAUC	3712	GATTCTGA GGCTAGCTACAACGA ACGCTCCC 4998
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1362	CCUGCGAA G UACCUUGG	3715	CCAAGGTA GGCTAGCTACAACGA TTCGCAGG 5001
1364	UGCGAAGU A CCUUGGUU	3716	AACCAAGG GGCTAGCTACAACGA ACTTCGCA 5002
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	CCUUGGUU A CCCACCCC	3718	GGGGTGGG GGCTAGCTACAACGA AACCAAGG 5004
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1387 CCCCAGAA A UAAAAUGG	3720	CCATTTTA	GGCTAGCTACAACGA	TTCTGGGG	5006
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1459 UGACGAUU A UGGAAGUG	3739	CACTTCCA	GGCTAGCTACAACGA	AATCGTCA	5025
1465 UUAUGGAA G UGAGUGAA	3740	TTCACTCA	GGCTAGCTACAACGA	TTCCATAA	5026
1469 GGAAGUGA G UGAAAGAG	3741	CTCTTTCA	GGCTAGCTACAACGA	TCACTTCC	5027
1478 UGAAAGAG A CACAGGAA	3742	TTCCTGTG	GGCTAGCTACAACGA	CTCTTTCA	5028
1480 AAAGAGAC A CAGGAAAU	3743	ATTTCCTG	GGCTAGCTACAACGA	GTCTCTTT	5029
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1490 AGGAAAUU A CACUGUCA	3745	TGACAGTG	GGCTAGCTACAACGA	AATTTCCT	5031
1492 GAAAUUAC A CUGUCAUC	3746	GATGACAG	GGCTAGCTACAACGA	GTAATTTC	5032
1495 AUUACACU G UCAUCCUU	3747	AAGGATGA	GGCTAGCTACAACGA	AGTGTAAT	5033
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1508 CCUUACCA A UCCCAUUU	3750	AAATGGGA	GGCTAGCTACAACGA	TGGTAAGG	5036
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1537 AGAGCCAU G UGGUCUCU	3755	AGAGACCA	GGCTAGCTACAACGA	ATGGCTCT	5041
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1549 UCUCUCUG G UUGUGUAU	3757	ATACACAA	GGCTAGCTACAACGA	CAGAGAGA	5043
1552 CUCUGGUU G UGUAUGUC	3758		GGCTAGCTACAACGA		5044
1554 CUGGUUGU G UAUGUCCC	3759	GGGACATA	GGCTAGCTACAACGA	ACAACCAG	5045
1556 GGUUGUGU A UGUCCCAC	3760	GTGGGACA	GGCTAGCTACAACGA	ACACAACC	5046
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1618	AGUACGGC A CCACUCAA	3773	TTGAGTGG GGCTAGCTACAACGA GCCGTACT 5	059
1621	ACGGCACC A CUCAAACG	3774	CGTTTGAG GGCTAGCTACAACGA GGTGCCGT 5	060
1627	CCACUCAA A CGCUGACA	3775	TGTCAGCG GGCTAGCTACAACGA TTGAGTGG 5	061
1629	ACUCAAAC G CUGACAUG	3776	CATGTCAG GGCTAGCTACAACGA GTTTGAGT 5	062
1633	AAACGCUG A CAUGUACG	3777	CGTACATG GGCTAGCTACAACGA CAGCGTTT 5	063
1635	ACGCUGAC A UGUACGGU	3778	ACCGTACA GGCTAGCTACAACGA GTCAGCGT 5	064
1637	GCUGACAU G UACGGUCU	3779	AGACCGTA GGCTAGCTACAACGA ATGTCAGC 5	065
1639	UGACAUGU A CGGUCUAU	3780	ATAGACCG GGCTAGCTACAACGA ACATGTCA 5	066
1642	CAUGUACG G UCUAUGCC	3781	GGCATAGA GGCTAGCTACAACGA CGTACATG 5	067
1646	UACGGUCU A UGCCAUUC	3782	GAATGGCA GGCTAGCTACAACGA AGACCGTA 5	068
1648	CGGUCUAU G CCAUUCCU	3783	AGGAATGG GGCTAGCTACAACGA ATAGACCG 5	069
1651	UCUAUGCC A UUCCUCCC	3784	GGGAGGAA GGCTAGCTACAACGA GGCATAGA 5	070
1662	CCUCCCCC G CAUCACAU	3785	ATGTGATG GGCTAGCTACAACGA GGGGGAGG 5	071
1664	UCCCCCGC A UCACAUCC	3786	GGATGTGA GGCTAGCTACAACGA GCGGGGGA 5	072
1667	CCCGCAUC A CAUCCACU	3787	AGTGGATG GGCTAGCTACAACGA GATGCGGG 5	073
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1673	UCACAUCC A CUGGUAUU	3789		075
1677	AUCCACUG G UAUUGGCA	3790	TGCCAATA GGCTAGCTACAACGA CAGTGGAT 5	076
1679	CCACUGGU A UUGGCAGU	3791		077
_	UGGUAUUG G CAGUUGGA	3792		078
1686	UAUUGGCA G UUGGAGGA	3793		079
1698	GAGGAAGA G UGCGCCAA	3794	<u> </u>	080
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	CGAGCCCA G CCAAGCUG	3799		085
	CCAGCCAA G CUGUCUCA	3800		086
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	CUGUCUCA G UGACAAAC	3802		088
	UCUCAGUG A CAAACCCA	3803		089
	AGUGACAA A CCCAUACC	3804		090
	ACAAACCC A UACCCUUG	3805		091
	AAACCCAU A CCCUUGUG	3806		092
	AUACCCUU G UGAAGAAU	3807		093
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	AUCAAUUU G CUCUAAUU	3818		104
	UUGCUCUA A UUGAAGGA	3819		104
	AGGAAAAA A CAAAACUG	3820		
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	ACAAAACU G UAAGUACC	3822		107 108
	AACUGUAA G UACCCUUG	3823		
	CUGUAAGU A CCCUUGUU	3824		109
كتت	33333333		1 DOG GOLLAGOLACIACIA ACITACAG 5.	110

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	UCCAAGCG G CAAAUGUG	 	CACATTTG GGCTAGCTACAACGA CGCTTGGA 5114
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1875	GCAAAUGU G UCAGCUUU	3831	AAAGCTGA GGCTAGCTACAACGA ACATTTGC 5117
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1897	AAUGUGAA G CGGUCAAC	3837	GTTGACCG GGCTAGCTACAACGA TTCACATT 5123
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1904	AGCGGUCA A CAAAGUCG	3839	CGACTTTG GGCTAGCTACAACGA TGACCGCT 5125
1909	UCAACAAA G UCGGGAGA	3840	TCTCCCGA GGCTAGCTACAACGA TTTGTTGA 5126
1927	GAGAGAGG G UGAUCUCC	3841	GGAGATCA GGCTAGCTACAACGA CCTCTCTC 5127
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1952	GACCAGGG G UCCUGAAA	3846	TTTCAGGA GGCTAGCTACAACGA CCCTGGTC 5132
1960	GUCCUGAA A UUACUUUG	3847	CAAAGTAA GGCTAGCTACAACGA TTCAGGAC 5133
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	AACCUGAC A UGCAGCCC		GGGCTGCA GGCTAGCTACAACGA GTCAGGTT 5138
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2305	UGGCACCC A CGAUCACA	3932	TGTGATCG	GGCTAGCTACAACGA	GGGTGCCA	5218
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2311	CCACGAUC A CAGGAAAC	3934	GTTTCCTG	GGCTAGCTACAACGA	GATCGTGG	5220
2318	CACAGGAA A CCUGGAGA	3935	TCTCCAGG	GGCTAGCTACAACGA	TTCCTGTG	5221
2327	CCUGGAGA A UCAGACGA	3936	TCGTCTGA	GGCTAGCTACAACGA	TCTCCAGG	5222
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2353	GGGAAAGC A UCGAAGUC	3942	GACTTCGA	GGCTAGCTACAACGA	GCTTTCCC	5228
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2364	GAAGUCUC A UGCACGGC	3944	GCCGTGCA	GGCTAGCTACAACGA	GAGACTTC	5230
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	ACCUCACU A UCCGCAGA		TCTGCGGA	GGCTAGCTACAACGA	AGTGAGGT	5254
2477	CACUAUCC G CAGAGUGA	3969	TCACTCTG	GGCTAGCTACAACGA	GGATAGTG	5255
2482	UCCGCAGA G UGAGGAAG	3970	CTTCCTCA	GGCTAGCTACAACGA	TCTGCGGA	5256
	GAAGGAGG A CGAAGGCC		GGCCTTCG	GGCTAGCTACAACGA	CCTCCTTC	5257
2501	GGACGAAG G CCUCUACA	3972	TGTAGAGG	GGCTAGCTACAACGA	CTTCGTCC	5258
2507	AGGCCUCU A CACCUGCC	3973	GGCAGGTG	GGCTAGCTACAACGA	AGAGGCCT	5259
2509	GCCUCUAC A CCUGCCAG	3974	CTGGCAGG	GGCTAGCTACAACGA	GTAGAGGC	5260
2513	CUACACCU G CCAGGCAU	3975	ATGCCTGG	GGCTAGCTACAACGA	AGGTGTAG	5261
2518	CCUGCCAG G CAUGCAGU	3976	ACTGCATG	GGCTAGCTACAACGA	CTGGCAGG	5262
2520	UGCCAGGC A UGCAGUGU	3977	ACACTGCA	GGCTAGCTACAACGA	GCCTGGCA	5263
2522	CCAGGCAU G CAGUGUUC	3978	GAACACTG	GGCTAGCTACAACGA	ATGCCTGG	5264
2525	GGCAUGCA G UGUUCUUG	3979	CAAGAACA	GGCTAGCTACAACGA	TGCATGCC	5265
2527	CAUGCAGU G UUCUUGGC	3980		GGCTAGCTACAACGA		5266
2534	UGUUCUUG G CUGUGCAA	3981	TTGCACAG	GGCTAGCTACAACGA	CAAGAACA	5267
	UCUUGGCU G UGCAAAAG			GGCTAGCTACAACGA	·	5268
	UUGGCUGU G CAAAAGUG			GGCTAGCTACAACGA		5269
			L			

				138		
2545	GUGCAAAA G UGGAGGCA	3984	TGCCTCCA	GGCTAGCTACAACGA	TTTTGCAC	5270
	AAGUGGAG G CAUUUUUC		GAAAAATG	GGCTAGCTACAACGA	CTCCACTT	5271
2553	GUGGAGGC A UUUUUCAU	3986	ATGAAAAA	GGCTAGCTACAACGA	GCCTCCAC	5272
2560	CAUUUUUC A UAAUAGAA	3987	TTCTATTA	GGCTAGCTACAACGA	GAAAAATG	5273
	UUUUCAUA A UAGAAGGU	3988	ACCTTCTA	GGCTAGCTACAACGA	TATGAAAA	5274
2570	AAUAGAAG G UGCCCAGG	3989	CCTGGGCA	GGCTAGCTACAACGA	CTTCTATT	5275
	UAGAAGGU G CCCAGGAA	3990	TTCCTGGG	GGCTAGCTACAACGA	ACCTTCTA	5276
2584	AGGAAAAG A CGAACUUG	3991	CAAGTTCG	GGCTAGCTACAACGA	CTTTTCCT	5277
2588	AAAGACGA A CUUGGAAA	3992	TTTCCAAG	GGCTAGCTACAACGA	TCGTCTTT	5278
	ACUUGGAA A UCAUUAUU	3993	AATAATGA	GGCTAGCTACAACGA	TTCCAAGT	5279
	UGGAAAUC A UUAUUCUA	3994	TAGAATAA	GGCTAGCTACAACGA	GATTTCCA	5280
	AAAUCAUU A UUCUAGUA	3995	TACTAGAA	GGCTAGCTACAACGA	AATGATTT	5281
2608	UUAUUCUA G UAGGCACG	3996	CGTGCCTA	GGCTAGCTACAACGA	TAGAATAA	5282
	UCUAGUAG G CACGGCGG	3997	CCGCCGTG	GGCTAGCTACAACGA	CTACTAGA	5283
	UAGUAGGC A CGGCGGUG	3998	CACCGCCG	GGCTAGCTACAACGA	GCCTACTA	5284
	UAGGCACG G CGGUGAUU	3999	AATCACCG	GGCTAGCTACAACGA	CGTGCCTA	5285
	GCACGGCG G UGAUUGCC	4000	GGCAATCA	GGCTAGCTACAACGA	CGCCGTGC	5286
	CGGCGGUG A UUGCCAUG			GGCTAGCTACAACGA		5287
	CGGUGAUU G CCAUGUUC	4002		GGCTAGCTACAACGA		5288
	UGAUUGCC A UGUUCUUC	4003	GAAGAACA	GGCTAGCTACAACGA	GGCAATCA	5289
	AUUGCCAU G UUCUUCUG	4004		GGCTAGCTACAACGA		5290
	UUCUUCUG G CUACUUCU	4005	AGAAGTAG	GGCTAGCTACAACGA	CAGAAGAA	5291
2643	UUCUGGCU A CUUCUUGU	4006	ACAAGAAG	GGCTAGCTACAACGA	AGCCAGAA	5292
	UACUUCUU G UCAUCAUC	4007	GATGATGA	GGCTAGCTACAACGA	AAGAAGTA	5293
	UUCUUGUC A UCAUCCUA	4008	TAGGATGA	GGCTAGCTACAACGA	GACAAGAA	5294
	UUGUCAUC A UCCUACGG	4009	CCGTAGGA	GGCTAGCTACAACGA	GATGACAA	5295
2661	AUCAUCCU A CGGACCGU	4010	ACGGTCCG	GGCTAGCTACAACGA	AGGATGAT	5296
	UCCUACGG A CCGUUAAG	4011	CTTAACGG	GGCTAGCTACAACGA	CCGTAGGA	5297
	UACGGACC G UUAAGCGG	4012		GGCTAGCTACAACGA		5298
	ACCGUUAA G CGGGCCAA	4013		GGCTAGCTACAACGA		5299
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	GGAGGGGA A CUGAAGAC	4016		GGCTAGCTACAACGA		5302
	AACUGAAG A CAGGCUAC	4017		GGCTAGCTACAACGA		5303
	GAAGACAG G CUACUUGU	4018		GGCTAGCTACAACGA		5304
	GACAGGCU A CUUGUCCA	4019		GGCTAGCTACAACGA		5305
	GGCUACUU G UCCAUCGU	4020		GGCTAGCTACAACGA		5306
	ACUUGUCC A UCGUCAUG	4021		GGCTAGCTACAACGA		5307
	UGUCCAUC G UCAUGGAU			GGCTAGCTACAACGA		5308
	CCAUCGUC A UGGAUCCA	4023		GGCTAGCTACAACGA		5309
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	GGAUCCAG A UGAACUCC	4025		GGCTAGCTACAACGA		5311
	CCAGAUGA A CUCCCAUU	4026		GGCTAGCTACAACGA		5312
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	CCCAUUGG A UGAACAUU			GGCTAGCTACAACGA		5314
	UUGGAUGA A CAUUGUGA	4029		GGCTAGCTACAACGA		5315
	GGAUGAAC A UUGUGAAC	4030		GGCTAGCTACAACGA		5316
	UGAACAUU G UGAACGAC	4031		GGCTAGCTACAACGA		5317
	CAUUGUGA A CGACUGCC	4032		GGCTAGCTACAACGA		5318
$\overline{}$	UGUGAACG A CUGCCUUA	4033		GGCTAGCTACAACGA		5319
	GAACGACU G CCUUAUGA	4034	<u>-</u>	GGCTAGCTACAACGA		5320
	ACUGCCUU A UGAUGCCA	4035		GGCTAGCTACAACGA		5321
2771	GCCUUAUG A UGCCAGCA	4036	TGCTGGCA	GGCTAGCTACAACGA	CATAAGGC	5322

2773	CUUAUGAU G CCAGCAAA	4037	TTTGCTGG	GGCTAGCTACAACGA	ATCATAAG	5323
2777	UGAUGCCA G CAAAUGGG	4038	CCCATTTG	GGCTAGCTACAACGA	TGGCATCA	5324
2781	GCCAGCAA A UGGGAAUU	4039	AATTCCCA	GGCTAGCTACAACGA	TTGCTGGC	5325
2787	AAAUGGGA A UUCCCCAG	4040	CTGGGGAA	GGCTAGCTACAACGA	TCCCATTT	5326
2798	CCCCAGAG A CCGGCUGA	4041	TCAGCCGG	GGCTAGCTACAACGA	CTCTGGGG	5327
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	CGGCUGAA G CUAGGUAA	4043	TTACCTAG	GGCTAGCTACAACGA	TTCAGCCG	5329
F	GAAGCUAG G UAAGCCUC	4044	GAGGCTTA	GGCTAGCTACAACGA	CTAGCTTC	5330
	CUAGGUAA G CCUCUUGG	4045		GGCTAGCTACAACGA		5331
	GCCUCUUG G CCGUGGUG	4046	CACCACGG	GGCTAGCTACAACGA	CAAGAGGC	5332
	UCUUGGCC G UGGUGCCU	4047		GGCTAGCTACAACGA		5333
	UGGCCGUG G UGCCUUUG	4048		GGCTAGCTACAACGA		5334
	GCCGUGGU G CCUUUGGC	4049		GGCTAGCTACAACGA		5335
	UGCCUUUG G CCAAGUGA	4050		GGCTAGCTACAACGA		5336
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\vdash	UGAUUGAA G CAGAUGCC	4053		GGCTAGCTACAACGA		5339
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2869		4057		GGCTAGCTACAACGA		5342
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	CUUGCAGG A CAGUAGCA	4062		GGCTAGCTACAACGA		5348
-	GCAGGACA G UAGCAGUC	4063		GGCTAGCTACAACGA		5349
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2902		4065		GGCTAGCTACAACGA		5351
	CAGUCAAA A UGUUGAAA	4066		GGCTAGCTACAACGA		5352
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2923		4068		GGCTAGCTACAACGA		5354
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	GGAGCAAC A CACAGUGA	4070		GGCTAGCTACAACGA		5356
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2933	AACACACA G UGAGCAUC	4072		GGCTAGCTACAACGA		5358
2937	CACAGUGA G CAUCGAGC	4073	GCTCGATG	GGCTAGCTACAACGA	TCACTGTG	5359
	CAGUGAGC A UCGAGCUC	4074		GGCTAGCTACAACGA		5360
2944	AGCAUCGA G CUCUCAUG	4075	CATGAGAG	GGCTAGCTACAACGA	TCGATGCT	5361
2950	GAGCUCUC A UGUCUGAA	4076		GGCTAGCTACAACGA		5362
2952	GCUCUCAU G UCUGAACU	4077	AGTTCAGA	GGCTAGCTACAACGA	ATGAGAGC	5363
2958	AUGUCUGA A CUCAAGAU	4078	ATCTTGAG	GGCTAGCTACAACGA	TCAGACAT	5364
2965	AACUCAAG A UCCUCAUU	4079	AATGAGGA	GGCTAGCTACAACGA	CTTGAGTT	5365
2971	AGAUCCUC A UUCAUAUU	4080	AATATGAA	GGCTAGCTACAACGA	GAGGATCT	5366
2975	CCUCAUUC A UAUUGGUC	4081	GACCAATA	GGCTAGCTACAACGA	GAATGAGG	5367
2977	UCAUUCAU A UUGGUCAC	4082	GTGACCAA	GGCTAGCTACAACGA	ATGAATGA	5368
2981	UCAUAUUG G UCACCAUC	4083	GATGGTGA	GGCTAGCTACAACGA	CAATATGA	5369
2984	UAUUGGUC A CCAUCUCA	4084	TGAGATGG	GGCTAGCTACAACGA	GACCAATA	5370
2987	UGGUCACC A UCUCAAUG	4085	CATTGAGA	GGCTAGCTACAACGA	GGTGACCA	5371
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2995	AUCUCAAU G UGGUCAAC	4087	GTTGACCA	GGCTAGCTACAACGA	ATTGAGAT	5373
2998	UCAAUGUG G UCAACCUU	4088	AAGGTTGA	GGCTAGCTACAACGA	CACATTGA	5374
3002	UGUGGUCA A CCUUCUAG	4089	CTAGAAGG	GGCTAGCTACAACGA	TGACCACA	5375
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3024	UGUACCAA G CCAGGAGG	4094	CCTCCTGG GGCTAGCTACAACGA TTGGTACA 5380
3033	CCAGGAGG G CCACUCAU	4095	ATGAGTGG GGCTAGCTACAACGA CCTCCTGG 5381
3036	GGAGGCC A CUCAUGGU	4096	ACCATGAG GGCTAGCTACAACGA GGCCCTCC 5382
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3043	CACUCAUG G UGAUUGUG	4098	CACAATCA GGCTAGCTACAACGA CATGAGTG 5384
3046	UCAUGGUG A UUGUGGAA	4099	TTCCACAA GGCTAGCTACAACGA CACCATGA 5385
3049	UGGUGAUU G UGGAAUUC	4100	GAATTCCA GGCTAGCTACAACGA AATCACCA 5386
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3071	AUUUGGAA A CCUGUCCA	4104	TGGACAGG GGCTAGCTACAACGA TTCCAAAT 5390
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3092	CCUGAGGA G CAAGAGAA	4108	TTCTCTTG GGCTAGCTACAACGA TCCTCAGG 5394
3101	CAAGAGAA A UGAAUUUG	4109	CAAATTCA GGCTAGCTACAACGA TTCTCTTG 5395
3105	AGAAAUGA A UUUGUCCC	4110	GGGACAAA GGCTAGCTACAACGA TCATTTCT 5396
3109	AUGAAUUU G UCCCCUAC	4111	GTAGGGGA GGCTAGCTACAACGA AAATTCAT 5397
3116	UGUCCCCU A CAAGACCA	4112	TGGTCTTG GGCTAGCTACAACGA AGGGGACA 5398
3121	CCUACAAG A CCAAAGGG	4113	CCCTTTGG GGCTAGCTACAACGA CTTGTAGG 5399
3130	CCAAAGGG G CACGAUUC	4114	GAATCGTG GGCTAGCTACAACGA CCCTTTGG 5400
3132	AAAGGGC A CGAUUCCG	4115	CGGAATCG GGCTAGCTACAACGA GCCCCTTT 5401
3135	GGGGCACG A UUCCGUCA	4116	TGACGGAA GGCTAGCTACAACGA CGTGCCCC 5402
3140	ACGAUUCC G UCAAGGGA	4117	TCCCTTGA GGCTAGCTACAACGA GGAATCGT 5403
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3157	AAGACUAC G UUGGAGCA	4120	TGCTCCAA GGCTAGCTACAACGA GTAGTCTT 5406
3163	ACGUUGGA G CAAUCCCU	4121	AGGGATTG GGCTAGCTACAACGA TCCAACGT 5407
3166	UUGGAGCA A UCCCUGUG	4122	CACAGGGA GGCTAGCTACAACGA TGCTCCAA 5408
3172	CAAUCCCU G UGGAUCUG	4123	CAGATCCA GGCTAGCTACAACGA AGGGATTG 5409
3176	CCCUGUGG A UCUGAAAC	4124	GTTTCAGA GGCTAGCTACAACGA CCACAGGG 5410
3183	GAUCUGAA A CGGCGCUU	4125	AAGCGCCG GGCTAGCTACAACGA TTCAGATC 5411
3186	CUGAAACG G CGCUUGGA	4126	TCCAAGCG GGCTAGCTACAACGA CGTTTCAG 5412
3188	GAAACGGC G CUUGGACA	4127	TGTCCAAG GGCTAGCTACAACGA GCCGTTTC 5413
3194	GCGCUUGG A CAGCAUCA	4128	TGATGCTG GGCTAGCTACAACGA CCAAGCGC 5414
3197	CUUGGACA G CAUCACCA	4129	TGGTGATG GGCTAGCTACAACGA TGTCCAAG 5415
3199	UGGACAGC A UCACCAGU	4130	ACTGGTGA GGCTAGCTACAACGA GCTGTCCA 5416
3202	ACAGCAUC A CCAGUAGC	4131	GCTACTGG GGCTAGCTACAACGA GATGCTGT 5417
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3209	CACCAGUA G CCAGAGCU	4133	AGCTCTGG GGCTAGCTACAACGA TACTGGTG 5419
3215	UAGCCAGA G CUCAGCCA	4134	TGGCTGAG GGCTAGCTACAACGA TCTGGCTA 5420
3220	AGAGCUCA G CCAGCUCU	4135	AGAGCTGG GGCTAGCTACAACGA TGAGCTCT 5421
3224	CUCAGCCA G CUCUGGAU	4136	ATCCAGAG GGCTAGCTACAACGA TGGCTGAG 5422
3231	AGCUCUGG A UUUGUGGA	4137	TCCACAAA GGCTAGCTACAACGA CCAGAGCT 5423
3235	CUGGAUUU G UGGAGGAG	4138	CTCCTCCA GGCTAGCTACAACGA AAATCCAG 5424
3246	GAGGAGAA G UCCCUCAG	4139	CTGAGGGA GGCTAGCTACAACGA TTCTCCTC 5425
3254	GUCCCUCA G UGAUGUAG	4140	CTACATCA GGCTAGCTACAACGA TGAGGGAC 5426
3257	CCUCAGUG A UGUAGAAG	4141	CTTCTACA GGCTAGCTACAACGA CACTGAGG 5427
3259	UCAGUGAU G UAGAAGAA	4142	TTCTTCTA GGCTAGCTACAACGA ATCACTGA 5428

2274 ANGAGGAN & CUCCUGAN 4143 TICAGGAN GICTAGCTRCANGGA TITCTTT 5429 2288 GARGAUCU & UNUANGGA 4145 TICCTTATA GICTAGCTRCANGGA AGACTTC 5431 2289 GARGAUCU & UNUANGGA 4146 AGTCCTTA GICTAGCTRCANCGA AGACTTC 5432 2296 GUAUNAGGA & UNAGGACU 4146 AGTCCTTA GICTAGCTRCANCGA AGAGTTC 5432 2396 AGUUCUCUA ACCUUGGA 4147 TOAGGANG GICTAGCTACANCGA ACAGATTTC 5433 2312 ACCUUGGA & CUUCUAUCU 4149 ATGACGANG GICTAGCTACANCGA CCTCANGGA 5435 2312 ACCUUGGA & CUUCUAUCU 4149 ATGACGANG GICTAGCTACANCGA CCCAGAGAT 5435 2313 AGCAUCUC & UUCUAUCU 4150 AGATGAGA GICTAGCTACANCGA CCCACAGA 5435 2314 CUUGGAGC & UUCUAUCU 4151 GTAACAGA GICTAGCTACANCGA GICTCCAACG 5435 2323 UCUUCALCU & UULGACCU 4151 GTAACAGA GICTAGCTACANCGA GAGATGCT 5437 2323 UCUUCALCU & UULGACCU 4153 GGAAGCTG GICTAGCTACANCGA GAGATGCT 5439 2323 UCUUCALCU & UULGACCU 4151 GGAAGCTG GICTAGCTACANCGA AGACGATG 5440 2323 UCUUCACA & UUGGUUCC 4153 GGAAGCTG GICTAGCTACANCGA AGACGATG 5440 2324 UCUCALAG & UUGGUUCC 4154 GTTGGAGA GICTAGCAACGA ACAGGATG 5440 2325 UCUUCACA & UUGGUUCC 4156 GCCCTTAG GICTAGCTACANCGA TITGAACG 5441 2326 CUUCCANA & UUGGAGC 4156 GCCCTTAG GICTAGCTACANCGA CACTTGGA 5442 2327 GUUCCAN & UUGGAGC 4158 GAACTCCA GICTAGCACACACA CACTTGGA 5442 2328 UUCUUGGC AUGAGGC 4158 GAACTCCA GICTAGCACACACA CACTTGGA 5442 2329 CUAAGGGC AUGAGGC 4159 GCCAAGAA GICTAGCTACAACGA GCCATGCA 5445 2329 AGUUCUCA UUCUUGGC 4158 GAACTCCA GICTAGCACACACA GCCAAGAA 5446 2321 UUCUUGGC AUGAGCACA 4154 TITTGGCA GICTAGCTACAACGA GCCAAGAA 5447 2326 AGUUCUUG CACCACAA 4154 TITTGGCA GICTAGCTACAACGA GCCAAGAA 5447 2327 UUGGCACA UUCUUCAC 4153 TITTGCGA GICTAGCTACAACGA GCCAAGAA 5447 2328 UUGUUGGC CACGAGAA 4164 TITTGCA GGCTAGCTTACAACGA ACTTTCC 5450 2329 UUGUUCAC AUGAGCACA 4164 TITTGCA GGCTAGCTTACAACGA TCCTTCC 5450 2329 CUGGCACA AUGAGCACA 4164 TITTCAGCA GGCT				
3288 GAAGAUCU G URUAAGGA 4145 TCCTTATA GGCTAGCTACAACGA AGATCTTC 5431	3274	AAGAGGAA G CUCCUGAA	4143	TTCAGGAG GGCTAGCTACAACGA TTCCTCTT 5429
3290 NGADUCUGU A URAGGACU 4146 AGTCCTTA GGCTAGCTACAACGA ACAGATCT 5432 3296 GUNUAGAG A CUUCCUGA 4147 ACAGGAAG GGCTAGCTACAACGA CCTTATAC 5433 3314 ACUUGGAG G CAUCUCAU 4149 ATGAGAG GGCTAGCTACAACGA CCTGAGAGAT 5434 3312 ACUUGGAG A CUUCAUCU 4149 ATGAGATG GGCTAGCTACAACGA CCCAGGAAGT 5435 3314 ACUUGGAG A UCUCAUCU 4150 AGATGAGA GGCTAGCTACAACGA CCCAGGAGT 5435 3319 AGCAUCUC A UCUCAUCU 4150 AGATGAGA GGCTAGCTACAACGA ACCAGTGCT 5437 3329 CUCUCALC A UCUCAUCU 4151 GTAACAGA GGCTAGCTACAACGA AGCAGTGCT 5437 3320 CUUCALCU G UUCCAAG 4151 GGAGAGTGG GGCTAGCTACAACGA AGCAGTGCT 5437 3329 CUUCUCAA G CUUCCAAG 4154 CTTGGAAG GGCTAGCTACAACGA AGCAGTG 5439 3329 CUUCUCAA G UUGCAAG 4154 CTTGGAAG GGCTAGCTACAACGA AGCAGTG 5440 3329 CUUCCAA G UUGCAAG 4156 GGCCTTAGGAGG GGCTAGCTACAACGA ACCAGTG 5440 3320 CUUCCAA G UUGCAAG 4156 GGCCTTAGGAGG GGCTAGCTACAACGA TGGAAGG 5441 3320 CUCCAAGU G CUAAGGC 4156 GGCCTTAG GGCTAGCTACAACGA CACTTAGGAAGG 5442 3329 CUAAGGG A UUGAGGA 4156 GCCCTTAG GGCTAGCTACAACGA CACTTGGA 5443 3329 CUAAGGG A UUGAGGA 4156 GCCCTTAG GGCTAGCTACAACGA CACTTGGA 5443 3329 CUAAGGG A UUGAGGA 4156 GCCCTTAG GGCTAGCTACAACGA CCCTTGGA 5443 3329 CUAAGGG A UUGAGGA 4156 GCCCTTAG GGCTAGCTACAACGA CCCTTGGA 5443 3329 CUAAGGG A UUGAGGA 4160 TCGCGATG GGCTAGCTACAACGA CCCTTGGA 5443 3326 AGCCAGGA G UUGAGGA 4160 TCGCGATG GGCTAGCTACAACGA CCCTTGGC 5445 3326 AGUUUUGG G CAUCGGA 4160 TCGCGATG GGCTAGCTACAACGA CCCTTGGC 5445 3326 AGUUUUGG A UUGAGGA 4160 TCGCGATG GGCTAGCTACAACGA CCCATGCC 5445 3327 AGCAACAGG ACCAGGA 4161 TCGCGA GGCTAGCTACAACGA CCCATGCC 5445 3328 AGCUCGC A UGAGGAA 4161 TCGCGA GGCTAGCTACAACGA CCCATGCC 5454 3329 AGCAGGAU G CGAAAGGG ACCAGGA 4164 TCGCGA GGCTAGCTACAACGA ACCTTTC GGCAGGAC 4166 GGCCAGG GGCTAGCTACAACGA ACCTTTC GGCAGGAC 4166 GGCCAGGG GGCTAGCTACAACGA ACCTTTC GGCAGGACCU GCCAGG 4167 CCCCCAG GGCTAGCTACAACGA ACCTTTC GGCAGGAC 4166 GGCCAGGG GGCTAGCTACAACGA ACCTTTC GGCAGGAC 4166 GGCCAGGG GGCTAGCTACAACGA ACCTTTC 5451 3326 CUGGGCG A CCAGGAGA 4164 TCTTGCGA GGCTAGCTACAACGA ACCTTTC 5451 3326 CUGGCGC G CACCAAUAU 4120 ACCACA GGCCAGGGAGCACACACA ACCTTTC 5461 3326 ACCUCCUU G CC	3284	UCCUGAAG A UCUGUAUA	4144	TATACAGA GGCTAGCTACAACGA CTTCAGGA 5430
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3337 GCUUCCAA G UGGCUAAG 4155 CTTAGCCA GGCTAGCTACAACGA CACTTGGA 5442 3347 GGCUAAGG G CAUAGGGC 4156 GCCCTTAG GGCTAGCTACAACGA CACTTGGA 5443 3347 GGCUAAGG C AUGAGGGC 4158 GAACTCCA GGCTAGCTACAACGA CCTTAGCC 5443 3349 CUAAGGGC A UGCAGGAGU 4159 GCCAAGAA GGCTAGCTACAACGA CCCTTAGCC 5445 3354 GGCAUGGA G UUCUUGGC 4159 GCCAAGAA GGCTAGCTACAACGA CCCTTAGCC 5445 3364 GUCUUGG C AUGAGGAG 4160 TCGCGATG GGCTAGCTACAACGA CCCATGCC 5445 3366 UUCUUGGC A UGCGGAA 4161 TTTGCGCA GGCTAGCTACAACGA CCAAGAAC 5446 3366 UUGCUUGG C AUGAGGAA 4161 TTTGCGCA GGCTAGCTACAACGA GCCAAGAA 5447 3372 UCGCGAAA G UJAUACCA 4164 TGTGGATA GGCTAGCTACAACGA CACACGA 5449 3374 GCGAAAGU G UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCGC 5450 3376 GAAAGUGU A UCCACCA 4164 TGTGGATA GGCTAGCTACAACGA ACACTTTC 5451 3380 GIGUAUCC A CAGGGACCA 4166 GGTCCCTG GGCTAGCTACAACGA ACACTTTC 5451 3380 GUGUAUCC A CAGGGACCA 4166 GGTCCCTG GGCTAGCTACAACGA ACACTTC 5452 3394 ACCUGGCG G CACGAAU 4169 ATTTCGTG GGCTAGCTACAACGA CAGGTACC 5454 3394 ACCUGGCG G CACGAAU 4169 ATTTCGTG GGCTAGCTACAACGA CAGGTACC 5454 3394 ACCUGGCG G CACGAAU 4169 ATTTCGTG GGCTAGCTACAACGA CAGGTACC 5454 3394 ACCUGGCG G CACGAAU 4170 ATATTTCG GGCTAGCTACAACGA CAGGTCC 5454 3394 ACCUGGCG A CAGAAUU 4171 ATAGAGGA GGCTAGCTACAACGA CAGGTCC 5454 3394 ACCUGGCG A CAGAAUU 4172 TAAGAGGA GGCTAGCTACAACGA CAGGTCC 5454 3491 AGCAGAAAU A UCCUCUU 4172 TAAGAGGA GGCTAGCTACAACGA ATTTCGTG 5454 3491 AGCAGAAAU A UCCUCUU 4172 TAAGAGGA GGCTAGCTACAACGA ATTTCTC 5467 3492 AGAGGAAC A UGUUUG 4174 TAACCAG GGCTAGCTACAACGA ATTTCTC 5467 3492 AGAGGAAC A UGUUUG 4174 TAACCAG GGCTAGCTACAACGA ATTTCTC 5467 3493 UAAAAUCU G UGUUUG 4176 GTCACAA GGCTAGCTACAACGA ATTTCTC 5467 3494 AAAGAGAA C GUGUUGA 4175 GTCACAA GGCTAGCTACAACGA ATTTCTC 5467 3494 AAAGAGAA C GUGUUGA 4175 GTCACAA GGCTAGCTACAACGA CAGAGTAC 5467 3494 AAAGAGAA C	3326	CAUCUGUU A CAGCUUCC	4153	GGAAGCTG GGCTAGCTACAACGA AACAGATG 5439
3340 UCCAAGUG G CUAAGGGC 4156 GCCCTTAG GGCTAGCTACAACGA CACTTGGA 5442 3347 GGCUAAGG G CAUGGAGU 4157 ACTCCATG GGCTAGCTACAACGA CCTTAGGC 5443 3349 CUAAGGGC A UGGAGUUC 4159 GCCAAGAA GGCTAGCTACAACGA CCCTTAG 5444 3354 GGCAUGGA G UUCUUGGC 4159 GCCAAGAA GGCTAGCTACAACGA CCCATGG 5445 3361 AGUUCUUG G CAUCGCGA 4160 TCGCGATG GGCTAGCTACAACGA CACGAACT 5446 3362 UUCUUGGC A UCGCGAAA 4161 TTTCGCGA GGCTAGCTACAACGA CACAGAACT 5446 3363 UUCUUGGC A UCGCGAAA 4161 TTTCGCGA GGCTAGCTACAACGA GCCAAGAA 5447 3372 UCGCGAAA GUAUCCCA 4163 TGGATACA GGCTAGCTACAACGA ACTTTCCC 5450 3374 GCGAAAGU GUAUCCAC 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCCC 5450 3376 GAAAGUG UUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCCC 5450 3386 GUGUAUCC ACGGGACC 4166 GGTCCTG GGCTAGCTACAACGA ACTTTCCC 5451 3386 GUGUAUCC ACGGGACC 4166 GGTCCTG GGCTAGCTACAACGA ACTTTCC 5451 3381 GGGACCUG GCGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA GGATACAC 5452 3394 ACCUGGCG GCGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA GGATACAC 5453 3394 ACCUGGCG CACGAAGA 4169 ATTTCGTG GGCTAGCTACAACGA CCGCTGGG 5454 3394 ACCUGGCG CACGAAGA 4169 ATTTCGTG GGCTAGCTACAACGA CCGCCAGG 5456 3396 CUGGCGGC CACGAAGA 4170 ATTTCTGT GGCTAGCTACAACGA CCGCCAGG 5456 3396 CUGGCGGC CACGAAGA 4170 ATTTCTGT GGCTAGCTACAACGA CCGCCAGG 5457 3401 GGCACGAA AUUCCUCU 4171 AGAGGAT GGCTAGCTACAACGA ATTTCGTG 5459 3411 AUCCUCUU AUCGGAGA 4172 TAACCAC GGCTAGCTACAACGA ATTTCGTG 5459 3422 GACAACA A CUUGGCC 4171 AGAGGAG GGCTAGCTACAACGA ATTTCGTG 5469 3422 GACAACA A CUUGGCC 4171 AGAGGAG GGCTAGCTACAACGA ATTTCTTC 5461 3427 AGAACGUG GUUGAA 4175 TTTAACCA GCTAGCTACAACGA ATTTCTC 5461 3427 AGAACGUG GUUGAAA 4175 TTTAACCA GCTAGCTACAACGA ATTTCTC 5462 3424 AGAAGAAC A CGUGGCC 4180 GGCCAGGA GGCTAGCTACAACGA ACAGTTT 5463 3424	3329	CUGUUACA G CUUCCAAG	4154	CTTGGAAG GGCTAGCTACAACGA TGTAACAG 5440
3347 GGCUAAGG G CAUGGAGU 4157 ACTCCATG GGCTAGCTACAACGA CCTTAGC 5444 3354 CUAAGGGC A UGGAGUUC 4159 GCCAAGAA GGCTAGCTACAACGA TCCATGC 5445 3354 GGCAUGGA G UUCUUGGC 4159 GCCAAGAA GGCTAGCTACAACGA TCCATGC 5445 3361 AGUUCUUG G CAUCGGAA 4160 TCGCGATG GGCTAGCTACAACGA CAAGAACT 5446 3363 UUCUUGGC A UCGCGAA 4161 TTTCGCGA GGCTAGCTACAACGA CAAGAACT 5446 3363 UUCUUGGC A UCGCGAA 4161 TTTCGCGA GGCTAGCTACAACGA CAAGAAC 5447 3366 UUGGCAUC G CAAAAGUG 4162 CACTTTCG GGCTAGCTACAACGA CATCCCAA 5449 3372 UCGCGAAA 6 UGUUCCA 4163 TGGATACA GGCTAGCTACAACGA TTTCGCC 5450 3374 GCGAAAGU G UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCG 5451 3380 GUGUUCC A CAGGGAC 4165 CCTGTGGA GGCTAGCTACAACGA ACCTTTC 5451 3380 GUGUUCC A CAGGGAC 4166 GGTCCCTG GGCTAGCTACAACGA ACACTTC 5451 3381 GUGUACC A CAGGGAC 4167 CCGCCAGG GGCTAGCTACAACGA CACTTTC 5451 3391 GGGACCUG G CGGCCAGA 4168 TCGTGCCG GGCTAGCTACAACGA CACGTTC 5454 3394 ACCUGGCG G CACGAAAU 4169 ATTTCCTG GGCTAGCTACAACGA CACGTCC 5454 3394 ACCUGGCG G CACGAAAU 4170 ATATTTCG GGCTAGCTACAACGA CGCCCAGG 5455 3401 GGCACGAA A UAUCCUCU 4171 AGAGGATA GGCTAGCTACAACGA CTCGTGCC 5457 3403 CACGAAAU A UCCUCUU 4172 TAAGAGGA GGCTACCAACGA ATTTCGTGC 5459 3411 AUCCUCUU A UCCGAGGAA 4173 TTCTCCGA GGCTAGCTACAACGA ATTTCGTGC 5459 3422 GGAGAAGA A UGUUCUA 4174 TAACCACG GGCTAGCTACAACGA ATTTCGTG 5459 3422 GGAGAAGA A UGUUGUA 4174 TAACCACG GGCTAGCTACAACGA ATTTCTCT 5461 3427 AGAACGUC G UUAAAAU 4176 GATTTTAA GGCTAGCTACAACGA ATTTCTTC 5461 3427 AGAACGUC G UUAAAAU 4176 GATTTTAA GGCTAGCTACAACGA ATTTCTTC 5461 3427 AGAACGUC G UUAAAAU 4176 GATTTTAA GGCTAGCTACAACGA ATTTCTTC 5461 3427 AGAACGUC G UUAAAAU 4176 GATTTTAA GGCTAGCTACAACGA ATTCTTCT 5462 3431 UGGUUAAA A UCUUGUC 4179 AGCAAAG GGCTAGCTACAACGA ATTCTTCT 5462 3431 UGGUUAAA A UCUUGUC 4179 AGCAAAG GGCTAGCTACAACGA ATCCCCGG 5468 3466 GACCGGG A UA	3337	GCUUCCAA G UGGCUAAG	4155	CTTAGCCA GGCTAGCTACAACGA TTGGAAGC 5441
3349 CUANGGGC A UGGAGUUC 4158 GAACTCCA GGCTAGCTACAACGA GCCCTTAG 5444 3354 GGCAUGGA G UUCUUGGC 4159 GCCAAGAA GGCTAGCTACAACGA TCCATGCC 5445 3361 AGUUCUUGG C AUCGCGAA 4160 TCGCGATG GGCTAGCTACAACGA CAAGAACT 5446 3363 UUCUUGGC A UCGCGAA 4161 TTTTGGCGA GGCTAGCTACAACGA CAAGAACAA 5447 3366 UUGUGGC A UCGCGAA 4161 TTTTGGCGA GGCTAGCTACAACGA GTAGCCAA 5448 3372 UCGCGAAA G UGUAUCCA 4163 TGGATACA GGCTAGCTACAACGA TTTCGCGA 5449 3374 GCGAAAGU U UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCG 5450 3376 GAAAGUGU A UCCACACA 4165 CCTGTGGA GGCTAGCTACAACGA ACTTTCG 5451 3380 GUGUAUCC A CAGGGCC 4166 GGTCCCTG GGCTAGCTACAACGA ACTTTCC 5451 3381 GGGACGA 4166 GGTCCCTG GGCTAGCTACAACGA ACTTTCC 5452 3386 CCACAGGG A CCUGGCGG 4167 CCGCCAGG GGCTAGCTACAACGA CCCTTTTGG 5453 3391 GGGACCUG GCGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA CAGGTCCC 5454 3394 ACCUGGCG CCGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA CAGGTCCC 5454 3396 CUGGCGGC CAGAAAUAU 4170 ATATTTCG GGCTAGCTACAACGA CAGGTCCC 5456 3401 GGCACGAA UCCUCUU 4171 AGAGGATA GGCTAGCTACAACGA ATTTCGTG 5457 3401 GACGAAAU UCCUCUU 4172 TAAGAGGA GGCTAGCTACAACGA ATTTCGTG 5458 3411 AUCCUCUU A UCGGAGAA 4173 TTCTCCGA GGCTAGCTACAACGA ATTTCTCC 5460 3424 AGAAGAAC G UGGUUA 4174 TAACCACG GGCTAGCTACAACGA ATTTCTCC 5461 3424 AGAAGAAC G UGGUUA 4175 TTTTACCA GGCTAGCTACAACGA ATTTCTCC 5461 3427 AGAACGUG G UUAUAAU 4176 GATTTTAA GGCTAGCTACAACGA AGATTTT 5461 3427 AGAACGUG G UUAUAAU 4176 GATTTTAA GGCTAGCTACAACGA AGATTTT 5461 3424 AGAAGAAC G UGGUUA 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTT 5462 3430 UGGUUC A CUUUGGCC 4180 GGCCAAG GGCTAGCTACAACGA AGATTTT 5464 AGACGUG G UUAUAAU 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTT 5463 3464 UGACUUU G UGACCUU 4178 AGACGAG GGCTAGCTACAACGA AGATCTT 5463 3464 GGACGAG AUUUUAAA 4183 TTTTATAA GGCTAGCT	3340	UCCAAGUG G CUAAGGGC	4156	GCCCTTAG GGCTAGCTACAACGA CACTTGGA 5442
3354 GGCAUGGA G UUCUUGGC 4159 GCCAAGAA GGCTAGCTACAACGA TCCATGCC 5445 3361 AGUUCUUG G CAUCGCGA 4160 TCGCGATG GGCTAGCTACAACGA CAAGAACT 5446 3363 UUCUUGGC A UCGCGAAA 4161 TTTCGCGA GGCTAGCTACAACGA GCCAAGAA 5447 3366 UUGGCCAUC G CGAAAAGUG 4162 CACTTTCG GGCTAGCTACAACGA GCCAAGAA 5448 3372 UCGCGAAA G UGUAUCCA 4163 TGGATACA GGCTAGCTACAACGA ACTTTCGC 5449 3374 GCGAAAGU G UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCGC 5449 3376 GAAAGUG U AUCCACAG 4165 CCTGTGGA GGCTAGCTACAACGA ACTTTCGC 5450 3380 GUGUAUCC A CAGGGGC 4166 GGTCCCTG GGCTAGCTACAACGA ACACTTTC 5451 3380 GUGUAUCC A CAGGGGC 4167 CCGCCAGG GGCTAGCTACAACGA ACACTTC 5452 3394 ACCUGGCG G CAGGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CACGTCC 5454 3394 ACCUGGCG G CACGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CACGCACGC 5454 3396 CUGGCGGC A CGAAAUAU 4170 ATATTTCG GGCTAGCTACAACGA CCCCCGCA 5456 3401 GGCACGAA A UAUCCUCU 4171 AGAGGATA GGCTAGCTACAACGA CCCCCCCA 5456 3411 AUCCUCUU A 172 TAACAGGA GGCTAGCTACAACGA ATTTCGTG 5459 3411 AUCCUCUU A 1026GAAA 4173 TCTCCGA GGCTAGCTACAACGA ATTTCGTG 5459 3422 GGAGAAGA A CUGGGGUA 4174 TAACCACG GGCTAGCTACAACGA ATTTCCTC 5461 3424 AGAAGAAC G UGGUUAA 4175 TTTAACCA GGCTAGCTACAACGA ATTTCTTC 5461 3424 AGAAGAAC G UGGUUAA 4176 GATTTTAA GGCTAGCTACAACGA ATTTCTTC 5461 3424 AGAAGAAC G UGGUUAA 4176 GATTTTAA GGCTAGCTACAACGA AGATTTTA 5464 AGAUCUUG A CUUUGGCC 4179 AGCCAAGG GGCTAGCTACAACGA AGATTTTA 5464 AGAUCUUG A CUUUGGCC 4180 GGCCAGGG GGCTAGCTACAACGA CACGTTCT 5462 3433 UGGUUAAAA 4175 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5463 3440 AAUCUGUC A CUUUGGCC 4180 GGCCAGG GGCTAGCTACAACGA CACGTTCT 5463 3464 UGACUUU A CAAGACCA 4179 AGCCAAAG GGCTAGCTACAACGA CACGGTTC 5463 3464 UGACUUU A CAAGACA 4186 GGCCAGG GGCTAGCTACAACGA CAAGCCA 5463 3464 GAACTUUAAAA 4183 TTTTTAAA GGCTAGCTACAACGA CACGGCC 5466 3466 GACCGGGC A UUUUUAAA 4181 ATTCTGG	3347	GGCUAAGG G CAUGGAGU	4157	ACTCCATG GGCTAGCTACAACGA CCTTAGCC 5443
3361 AGUUCUUG G CAUCGCGA 4160 TCGCGATG GGCTAGCTACAACGA CAAGAACT 5446 3363 UUCUUGGC A UCGCGAAA 4161 TTTCGCCA GGCTAGCTACAACGA GCCAAGAA 5447 3366 UUGGCGAUC G CSAAAGUG 4162 CACTTTCG GGCTAGCTACAACGA GATCCCAA 5448 3372 UCGCGAAA G UGAUCCAC 4164 TGTGGATA GGCTAGCTACAACGA TTTCGCGA 5449 3374 GCGAAAGU G UAUCCAC 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCG 5450 3376 GAAAGUGU A UCCACAGG 4165 CCTGTGGA GGCTAGCTACAACGA ACTTTCG 5451 3386 CUGACAGG A 6165 CCTGTGGA GGCTAGCTACAACGA CCCTGTG 5452 3386 CUGACAGG A CCUGGCGG 4166 GGTCCCTG GGCTAGCTACAACGA CCCTGTGG 5453 3391 GGGACCU G CGGCCAG 4168 TCGTGCCG GGCTAGCTACAACGA CCCTGTGG 5453 3394 ACCUGGCG CACGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CAGGTCCC 5454 3394 ACCUGGCG CACGAAAU 4169 ATTTCTG GGCTAGCTACAACGA CAGGTCCC 5454 3394 ACCUGGCG CACGAAAU 4170 ATATTTCG GGCTAGCTACAACGA CAGGTCCC 5454 3394 ACCUGGCG CACGAAAU 4171 AGAGGATA GGCTAGCTACAACGA TCGTGCC 5456 3401 GGCACGAA UAUCCUCU 4171 AGAGGATA GGCTAGCTACAACGA TTCGTGC 5457 3403 CACGAAAU UCCUCUU 4171 AGAGGATA GGCTAGCTACAACGA ATTTCGTG 5458 3411 AUCCUCUU AUCGAGAA 4174 TAACCACG GGCTAGCTACAACGA ATTTCGTG 5458 3424 AGAAGAAC GUGGUUAA 4174 TAACCACG GGCTAGCTACAACGA ATTTCGTC 5460 3424 AGAAGAAC GUGGUUAA 4175 TTTACCC GGCTAGCTACAACGA GTTCTTCC 5461 3427 AGAACGU G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA ATTTCTCC 5462 3433 UGGUUAAA A UCUUUGC 4179 GTCACAGA GGCTAGCTACAACGA ACCTTTT 5462 3431 UAUCUUC G UUAGCCC 4180 GGCCAAG GGCTAGCTACAACGA ACCTTTT 5462 3431 UAUCUUC G UUAGCCC 4180 GGCCAAG GGCTAGCTACAACGA ACACTTT 5464 3440 AAUCUUG G UUAGCCC 4180 GGCCAAG GGCTAGCTACAACGA ACACTTT 5464 3440 AAUCUUG G UUAGCCC 4180 GGCCAAG GGCTAGCTACAACGA ACACTTT 5467 3458 GGCCAGGA AUAUUUAAA 4181 ATCCCGG GGCTAGCTACAACGA ACACTTT 5467 3458 GGCCAGG	3349	CUAAGGGC A UGGAGUUC	4158	GAACTCCA GGCTAGCTACAACGA GCCCTTAG 5444
3363 UUCUUGGC A UCGCGAAA 4161 TTTCGCGA GGCTAGCTACAACGA GCCAAGAA 5447 3366 UUGGCAUC G CGAAAGUG 4162 CACTTTCG GGCTAGCTACAACGA CATCCCAA 5448 3372 UCGCGAAA G UGUAUCCA 4163 TGGATACA GGCTAGCTACAACGA ATTCGCCG 5459 3374 GCGAAAGUG UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCGC 5450 3376 GAAAGUGU A UCCACAG 4165 CCTGTGGA GGCTAGCTACAACGA ACTTTCC 5451 3380 GUGUAUCC A CAGGGACC 4166 GGTCCCTG GGCTAGCTACAACGA CACTTTC 5451 3380 GUGUAUCC A CAGGGACC 4166 GGTCCCTG GGCTAGCTACAACGA GGATACAC 5452 3386 CCACAGGG A CCUGGCGC 4167 CCGCCAGG GGCTAGCTACAACGA CCCTGTGG 5453 3391 GGGACCUG G CGGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA CGCCAGG 5454 5399 CUGGCGG C CACGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CGCCAGC 5454 5396 CUGGCGGC C CACGAAAUAU 4170 ATATTTCG GGCTAGCTACAACGA CGCCCCAG 5456 3401 GGCACGAA 1400CUCUU 4171 AGAGGATA GGCTAGCTACAACGA TCCGTGCC 5457 3403 CACGAAAUA UCCUCUU 4172 TAAGAAGA GGCTAGCTACAACGA ATTCCGTG 5458 3411 AUCCUCUU A UCGGAGAA 4173 TTCTCCGA GGCTAGCTACAACGA ATTCCGTG 5458 3422 GGAGAAGA A CGUGGUUA 4174 TAACCACG GGCTAGCTACAACGA ATTCCGTG 5458 3422 GGAGAAGA A CGUGGUUA 4174 TAACCACG GGCTAGCTACAACGA ATTCCTC 5460 3424 AGAAGAAC G UGUUAAA 4175 TTTAACCA GGCTAGCTACAACGA ACGTTCT 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA AGATTTTA 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA AGATTTTA 5463 3431 UGGUUAAA A UCUGUGC 4179 AGCCAAG GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGCC 4180 GGCCAAG GGCTAGCTACAACGA AGATTTTA 5464 3451 UUGGCUU G CCCGGGAU 4181 ATCCCGG GGCTAGCTACAACGA AGATTTTA 5465 3451 UUGGCUU G CCCGGGAU 4181 ATCCCGG GGCTAGCTACAACGA AGACCAA 5465 3451 UUGACUAA 4186 TTTTTAA GGCTAGCTACAACGA AGAGCCAA 5467 3466 GAUAUUU A UAAAGAUC 4186 GATCTTTA GGCTAGCTACAACGA AGACCAA 5467 3466 GAUAUUU A UAAA	3354	GGCAUGGA G UUCUUGGC	4159	GCCAAGAA GGCTAGCTACAACGA TCCATGCC 5445
3366 UUGGCAUC G CSAAAGUG 4162 CACTTTCG GGCTACAACGA GATGCCAA 5448 3372 UCGCGAAA G UGUAUCCA 4163 TGGATACA GGCTAGCTACAACGA TTTCGCGA 5449 3374 GCGAAAGU G UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCG 5450 3376 GAAAGUGU A UCCACAGG 4165 CCTGTGGA GGCTAGCTACAACGA ACTTTCC 5451 3380 GUGUAUCCA CAGAGGACC 4166 GGTCCCTG GGCTAGCTACAACGA ACACTTC 5451 3380 GUGUAUCCA CAGAGGACC 4166 GGTCCCTG GGCTAGCTACAACGA CCCTGTGG 5452 3381 GGGACCUG G CGGCACGA 4168 TCGTGCG GGCTAGCTACAACGA CCCTGTGG 5453 3391 GGGACCUG G CGCGACA 4168 TCGTGCG GGCTAGCTACAACGA CCCTGTGG 5454 3394 ACCUGGCG G CACGAAAU 4170 ATATTTCG GGCTAGCTACAACGA CCCCCAG 5456 3401 GGCACGAA A UAUCCUCU 4171 AGAGGATA GGCTAGCTACAACGA TCCTGCC 5457 3403 CACGAAAU A UCCUCUU 4172 TAACAAGA GGCTAGCTACAACGA ATTTCGTG 5458 3411 AUCCUCU A UCCGAGAA 4174 TAACCACG GGCTAGCTACAACGA ATTTCGTG 5458 3424 AGAAGAAC G UGGUUAA 4174 TAACCACG GGCTAGCTACAACGA ATTTCTCC 5460 3424 AGAAGAAC G UGGUUAA 4175 TTTTACCA GGCTAGCTACAACGA TCTTCTC 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA TCTTCTC 5462 3433 UGGUUAAA A UCUGUGGA 4177 GTCACAGA GGCTAGCTACAACGA ATTTCTC 5461 3437 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA ATTTCTC 5462 3433 UGACUUUG G UUGGCC 4180 GGCCAAG GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGU G UCUGCCC 4180 GGCCAAG GGCTAGCTACAACGA AGATTTT 5465 3451 UUGGCUUG G CCGGGAU 4181 ATCCCGG GGCTAGCTACAACGA AGATTT 5466 3451 UUGGCUUG G CCGGGAU 4181 ATCCCGG GGCTAGCTACAACGA AAAGTCA 5466 3451 UUGGCUUG G CCGGGAU 4181 ATCCCGG GGCTAGCTACAACGA AAAGTCC 5469 3460 CCGGGAU A UULUAAA 4183 TTTATAAA GGCTAGCTACAACGA AAAGTCC 5469 3460 CCGGGAU A UULUAAAA 4185 TTTATAAA GGCTAGCTACAACGA ATCTCCGG 5469 3460 CCGGGAU A UULUAAAA 4185 TTTATAAA GGCTAGCTACAACGA ATCTC	3361	AGUUCUUG G CAUCGCGA	4160	TCGCGATG GGCTAGCTACAACGA CAAGAACT 5446
3372 UCGCGAAA G UGUAUCCA 4163 TGGATACA GGCTAGCTACAACGA TTTCGCCA 5449 3374 GCGAAAGU G UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCG 5450 3376 GAAAGUGU A UCCACAGG 4165 CCTGTGGA GGCTAGCTACAACGA ACTTTCC 5451 3380 GUGUAUCC A CAGGGACC 4166 GGTCCCTG GGCTAGCTACAACGA GGATACC 5452 3386 CCACAGGG A CCUGGCGG 4167 CCGCCAGG GGCTAGCTACAACGA GGATACAC 5453 3391 GGGACCUG G CGGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA CACGTTCC 5454 3394 ACCUGGCG G CACGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CAGGTCCC 5454 3396 CUGGCGGC A CGAAAUA 4170 ATATTTCG GGCTAGCTACAACGA CGCCAGG 5455 3401 GGCACGAA A UAUCCUCU 4171 AGAGGATA GGCTAGCTACAACGA ATTTCGTGC 5457 3403 CACGAAAUA UCCUCUUA 4172 TAAAGAGGA GGCTAGCTACAACGA ATTTCGTGC 5458 3411 AUCCUCUU A UCGGAGAA 4174 TAACCACG GGCTAGCTACAACGA ATTTCGTGC 5458 3422 GGAGAAGA A CGUGGUUAA 4174 TAACCACG GGCTAGCTACAACGA ATTTCGTGC 5459 3422 GAAGAGAA A CGUGGUUAA 4175 TTTTAACCA GGCTAGCTACAACGA ATTTCTCC 5460 3424 AGAAGGAAC G UGGUUAAA 4175 TTTTAACCA GGCTAGCTACAACGA GTTCTTCTC 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA GTTCTTCT 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA ACGTTCTT 5462 3433 UGGUUAAA A UCUGUGGC 4179 AGCCAAAG GGCTAGCTACAACGA ACGTTTTT 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA ACGTTTTA 5464 3440 AAUCUGUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CACGTTTT 5463 3446 UGACUUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CACGATT 5465 3456 UUGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CACGACTT 5465 3451 UUGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CACGACTA 5467 3470 UUAUAAAA 4183 TTTTATAAA GGCTAGCTACAACGA CACAGACTA 5467 3470 UUAUAAAA 4183 TTTTCTGAA GGCTAGCTACAACGA CACAGCCAA 5467 3470 UUAUAAAA 4185 TTTCTGAA GGCTAGCTACAACGA ATATCCC 5470 3470 UUAUAAAA 4186 GATCTTTA GGCTAGCTACAACGA ATATCCC 5470 3470 UUAUAAAA 4188 TTT	3363	UUCUUGGC A UCGCGAAA	4161	TTTCGCGA GGCTAGCTACAACGA GCCAAGAA 5447
3374 GCGAAAGU G UAUCCACA 4164 TGTGGATA GGCTAGCTACAACGA ACTTTCG 5450 3376 GAAAGUGU A UCCACAGG 4165 CCTGTGGA GGCTAGCTACAACGA ACACTTTC 5451 3380 GUGUAUCC A CAGGGACC 4166 GGTCCCTG GGCTAGCTACAACGA ACACTTTC 5451 3380 GUGUAUCC A CAGGGACC 4166 GGTCCCTG GGCTAGCTACAACGA GGATACAC 5452 3381 GGGACCUG G CGGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA CACGTTCG 5453 3391 ACCUGGCG G CACGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CAGGTCCC 5454 3394 ACCUGGCG G CACGAAAU 4170 ATATTTCG GGCTAGCTACAACGA CGCCAGGT 5455 3401 GGCACGAA A UAUCCUCU 4171 AGAGGATA GGCTAGCTACAACGA GCCCAGGT 5456 3401 GGCACGAA A UAUCCUCU 4172 TAAAGAGGA GGCTAGCTACAACGA TTCGTGCC 5457 3403 CACGAAAU A UCCUCUUA 4172 TAAAGAGGA GGCTAGCTACAACGA ATTTCGTG 5458 3411 AUCCUCUU A UCGGAGAA 4173 TTCTCCGA GGCTAGCTACAACGA ATTTCGTG 5459 3422 GGAAAAGA A CGUGGUUAA 4174 TAACCACG GGCTAGCTACAACGA ATTTCTTC 5460 3424 AGAAGAAC A CGUGGUUA 4175 TTTTACCA GGCTAGCTACAACGA TCTTCTCC 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA GTTCTTTC 5461 3433 UGGUVAAA A UCCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA AGATTTTA 5464 3431 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA AGATTTTA 5465 3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCT 5465 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCCGGG A UAUUAUAA 4182 TATAAATA GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCCGGG A UAUUAUAA 4183 TTTTATAA GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCAGGA AUAUUAAAAU 4186 ATCCTGGA GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCAGGA AUAUUAAAA 4183 TTTTATAAA GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCAGGA AUAUUAAAA 4183 TTTTATAAA GGCTAGCTACAACGA CAAAGTCA 5467 3469 CCAGGAAA AUAAGAC 4186 GACCACA GGCTAGCTACAACGA AATATCC 5470 3479 UCCAGAAU A UUAAGAAA 4183 TTTTATAAA GGCTAGCTACAACGA AATCTCGGG 5469 3460 CCCGGGAU A UUAAAAAC 4188 TTTCTGAA GGCTAGCTACAACGA AATCTCG 5470 3479 UCCAGAUU A UGAAAAA 4188 TTTCTGAA GGCTAGCT	3366	UUGGCAUC G CGAAAGUG	4162	CACTTTCG GGCTAGCTACAACGA GATGCCAA 5448
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3380 GUGUAUCC A CAGGGACC 4166 GGTCCCTG GGCTAGCTACAACGA GGATACAC 5452	3374	GCGAAAGU G UAUCCACA	4164	TGTGGATA GGCTAGCTACAACGA ACTTTCGC 5450
3386 CCACAGGG A CCUGGCG 4167 CCGCCAGG GGCTAGCTACAACGA CCCTGTGG 5453 3391 GGGACCUG G CGGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA CAGGTCCC 5454 3394 ACCUGGCG G CAGGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CGCCAGGT 5455 3396 CUGGCGGC A CGAAAUAU 4170 ATATTTCG GGCTAGCTACAACGA GCCCCAGG 5456 3401 GGCACGAA A UAUCCUCU 4171 AGAGGATA GGCTAGCTACAACGA ATTTCGTGCC 5457 3403 CACGAAAUA UCCUCUU 4172 TAAGAGGA GGCTAGCTACAACGA ATTTCGTGC 5458 3411 AUCCUCUU A UCGGAGAA 4173 TTCTCCGA GGCTAGCTACAACGA ATTTCGTG 5458 3422 GGAGAGAA A CGUUGUUA 4174 TAACCACG GGCTAGCTACAACGA AAGAGGAT 5459 3422 GGAGAGAA A CGUUGUUA 4175 TTTTACCA GGCTAGCTACAACGA ATTTCTCC 5460 3424 AGAAGAAC G UGGUUAA 4175 TTTTACCA GGCTAGCTACAACGA GTTCTTCT 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA GTTCTTCT 5462 3433 UAGAUAAA UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA GAAGTTTA 5463 3440 AAUCUGUG A CUUUGGCU 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAC GGCTAGCTACAACGA CAAAGTCA 5465 3461 UUGCUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5465 3451 UUGCUUG G CCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCCGGG AUUUUAUAA 4182 TATTAAATA GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCCGGG AUUUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA CAAAGTCA 5467 3464 GGAUAUUU AUAAAGAUC 4184 GATCTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAA AUCCAGAAA 4185 TTTCTGACA GGCTAGCTACAACGA AAATATCC 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA ATATTCTG 5472 3479 UCCAGAUU A UGUCAGAA 4186 GAACATAA GGCTAGCTACAACGA ATATTCTG 5472 3479 UCCAGAUU A UGUCAGAA 4186 GAGCAGAG GGCTAGCTACAACGA ATATCTCT 5475 3496 AAGGAGAU G UCCGCCC 4193 GGCGAGG GGCTAGCTACAACGA ATATCTCT	3376	GAAAGUGU A UCCACAGG	4165	CCTGTGGA GGCTAGCTACAACGA ACACTTTC 5451
3391 GGGACCUG G CGGCACGA 4168 TCGTGCCG GGCTAGCTACAACGA CAGGTCCC 5454 3394 ACCUGGCG G CACGAAAU 4169 ATTTCGTG GGCTAGCTACAACGA CGCCAGGT 5455 3396 CUGGCGGC A CGAAAUAU 4170 ATATTTCG GGCTAGCTACAACGA GCCGCCAG 5456 3401 GGCACGAA A UAUCCUCUU 4171 AGAGGATA GGCTAGCTACAACGA TTCGTGCC 5457 3403 CACGAAAU A UCCUCUUA 4172 TAAGAGGA GGCTAGCTACAACGA ATTTCGTG 5458 3411 AUCCUCUU A UCGGAGAA 4173 TTCTCCGG GGCTAGCTACAACGA ATTTCGTG 5458 3411 AUCCUCUU A UCGGAGAA 4174 TAACCACG GGCTAGCTACAACGA ATCTCTCC 5460 3424 AGAAGAAC G UGGUUAAA 4175 TTTAACCA GGCTAGCTACAACGA ACGATCTCT 5461 3427 AGAACGAC G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5461 3427 AGAACGU G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5462 3433 UGGUUAAA A UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA CACGTTCT 5463 3437 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CACAGATT 5465 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CAAGCCAA 5467 3464 GGAUUUU A UAAAGAUC 4184 GATCTTTA GGCTACAACGA CAAGCCAA 5467 3464 GGUAUUUU A UAAAGAUC 4184 GATCTTTA GGCTACAACGA CACGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA CACGCGGCC 5468 3464 GGUAUUU A UAAAGAUC 4184 GATCTTTA GGCTACAACGA CTCTGGGC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTCGGGC 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA CTCCTTT 5475 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGACA GGCTAGCTACAACGA CTCCTTT 5475 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGACA GGCTAGCTACAACGA CTCCTTT 5475 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA CTCCTTT 5476 350	3380	GUGUAUCC A CAGGGACC	4166	GGTCCCTG GGCTAGCTACAACGA GGATACAC 5452
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3403 CACGAAAU A UCCUCUUA 4172 TAAGAGGA GGCTAGCTACAACGA ATTTCGTG 5458 3411 AUCCUCUU A UCGGAGAA 4173 TTCTCCGA GGCTAGCTACAACGA AAGAGGAT 5459 3422 GGAGAAGA A CGUGGUUA 4174 TAACCACG GGCTAGCTACAACGA TCTTCTC 5460 3424 AGAAGAAC G UGGUUAAA 4175 TTTAACCA GGCTAGCTACAACGA GTTCTTCT 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5462 3433 UGGUUAAA A UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA CACGATTTAA 5463 3447 UAAAAUCU G UCACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA CACAGATT 5465 3440 AAUCUGUG A CUUUGGCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467 3458 GGCCCAGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTACAACGA ATCCCGGG	3396	CUGGCGGC A CGAAAUAU	4170	ATATTTCG GGCTAGCTACAACGA GCCGCCAG 5456
3411 AUCCUCUU A UCGGAGAA 4173 TTCTCCGA GGCTAGCTACAACGA AAGAGGAT 5459 3422 GGAGAAGA A CGUGGUUA 4174 TAACCACG GGCTAGCTACAACGA TCTTCTCC 5460 3424 AGAAGAAC G UGGUUAAA 4175 TTTAACCA GGCTAGCTACAACGA GTTCTTCT 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5462 3433 UGGUUAAA A UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA CACAGATT 5465 3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAGGCCA 5467 3458 GGCCCGGG A UAUUUUAUA 4182 TATAAATA GGCTAGCAACGA CAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCAACGA ATCCCGGG 5469 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCAACGA CTTATAA 5471 3479 UCCAGAAUA A UGUCCA 4186 TTCTGACA GGCTAGCACACGA ATCTGGA 5472 3479 UCCAGAAUA G UCAGAAA 4188 TTCTGGA GGCTAG	3401	GGCACGAA A UAUCCUCU	4171	AGAGGATA GGCTAGCTACAACGA TTCGTGCC 5457
3422 GGAGAAGA A CGUGGUUA 4174 TAACCACG GGCTAGCTACAACGA TCTTCTCC 5460 3424 AGAAGAAC G UGGUUAAA 4175 TTTAACCA GGCTAGCTACAACGA GTTCTTCT 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5462 3433 UGGUUAAA A UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA TTTAACCA 5463 3437 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA CACAGATT 5465 3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGGTCA 5467 3458 GGCCCGGG A UAUUUAUAA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ACCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA ATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGAC GGCTAGCTACAACGA ATCTGGA 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGC GGCTAGCTACAACGA ATCTCGT 5476 3496 AAGGACAU G CUCGCCU 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5475 3496 AAGGACAU G CUCGCCU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5476 3513 CCUUUGAA A UGGACCCA 4191 AAGGGAGG GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4191 TGGGGCGAG GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3403	CACGAAAU A UCCUCUUA	4172	TAAGAGGA GGCTAGCTACAACGA ATTTCGTG 5458
3424 AGAAGAAC G UGGUUAAA 4175 TTTAACCA GGCTAGCTACAACGA GTTCTTCT 5461 3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5462 3433 UGGUUAAA A UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA TTTAACCA 5463 3437 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA CACAGATT 5465 3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCCUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTTGATCT 5472 3479 UCCAGAUU U GUCAGAAA 4187 TTCTGACA GGCTAGCTACAACGA ATCCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTCTGAC GGCTAGCTACAACGA ATCATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA ATCATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA ATCTCCTT 5475 3496 AAGGAGAU G CUCCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5476 3510 AGAUCCUG C CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3411	AUCCUCUU A UCGGAGAA	4173	TTCTCCGA GGCTAGCTACAACGA AAGAGGAT 5459
3427 AGAACGUG G UUAAAAUC 4176 GATTTTAA GGCTAGCTACAACGA CACGTTCT 5462 3433 UGGUUAAA A UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA TTTAACCA 5463 3437 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA AGATTTTA 5466 3440 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTTGATCT 5472 3479 UCCAGAUU U GUCAGAAA 4187 TTCTGACA GGCTAGCTACAACGA ATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTCTGACA GGCTAGCTACAACGA ATCTTGGA 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA ATCATCT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3422	GGAGAAGA A CGUGGUUA	4174	TAACCACG GGCTAGCTACAACGA TCTTCTCC 5460
3433 UGGUUAAA A UCUGUGAC 4177 GTCACAGA GGCTAGCTACAACGA TTTAACCA 5463 3437 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA CACAGATT 5465 3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTGTATTA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA ATCTCGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGACA GGCTAGCTACAACGA ATCTCGA 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCC GGCTAGCTACAACGA ATCTCTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCCAA 4193 TGGGGCCA GGCTAGCTACAACGA CATCCATT 5480	3424	AGAAGAAC G UGGUUAAA	4175	TTTAACCA GGCTAGCTACAACGA GTTCTTCT 5461
3437 UAAAAUCU G UGACUUUG 4178 CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464 3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA CACAGATT 5465 3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATCTGGA 5473 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA ATCTCTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5477 3513 CCUUUGAA A UGGAUGCC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CATCTATCA 5479 3520 AAUGGAUG G CCCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3427	AGAACGUG G UUAAAAUC	4176	GATTTTAA GGCTAGCTACAACGA CACGTTCT 5462
3440 AAUCUGUG A CUUUGGCU 4179 AGCCAAAG GGCTAGCTACAACGA CACAGATT 5465 3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAAGTCA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCCGA GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA CCATTCCA 5479 3520 AAUGGAUG G CCCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3433	UGGUUAAA A UCUGUGAC	4177	GTCACAGA GGCTAGCTACAACGA TTTAACCA 5463
3446 UGACUUUG G CUUGGCCC 4180 GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466 3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA CTGGATCT 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTCCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3437	UAAAAUCU G UGACUUUG	4178	CAAAGTCA GGCTAGCTACAACGA AGATTTTA 5464
3451 UUGGCUUG G CCCGGGAU 4181 ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467 3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3440	AAUCUGUG A CUUUGGCU	4179	AGCCAAAG GGCTAGCTACAACGA CACAGATT 5465
3458 GGCCCGGG A UAUUUAUA 4182 TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468 3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA ATCTCCTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3446	UGACUUUG G CUUGGCCC	4180	GGGCCAAG GGCTAGCTACAACGA CAAAGTCA 5466
3460 CCCGGGAU A UUUAUAAA 4183 TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469 3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA ATCTCCTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA ATCTCCTT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3451	UUGGCUUG G CCCGGGAU	4181	ATCCCGGG GGCTAGCTACAACGA CAAGCCAA 5467
3464 GGAUAUUU A UAAAGAUC 4184 GATCTTTA GGCTAGCTACAACGA AAATATCC 5470 3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3458	GGCCCGGG A UAUUUAUA	4182	TATAAATA GGCTAGCTACAACGA CCCGGGCC 5468
3470 UUAUAAAG A UCCAGAUU 4185 AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471 3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3460	CCCGGGAU A UUUAUAAA	4183	TTTATAAA GGCTAGCTACAACGA ATCCCGGG 5469
3476 AGAUCCAG A UUAUGUCA 4186 TGACATAA GGCTAGCTACAACGA CTGGATCT 5472 3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3464	GGAUAUUU A UAAAGAUC	4184	GATCTTTA GGCTAGCTACAACGA AAATATCC 5470
3479 UCCAGAUU A UGUCAGAA 4187 TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473 3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3470	UUAUAAAG A UCCAGAUU	4185	AATCTGGA GGCTAGCTACAACGA CTTTATAA 5471
3481 CAGAUUAU G UCAGAAAA 4188 TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474 3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3476	AGAUCCAG A UUAUGUCA	4186	TGACATAA GGCTAGCTACAACGA CTGGATCT 5472
3494 AAAAGGAG A UGCUCGCC 4189 GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475 3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3479	UCCAGAUU A UGUCAGAA	4187	TTCTGACA GGCTAGCTACAACGA AATCTGGA 5473
3496 AAGGAGAU G CUCGCCUC 4190 GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476 3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3481	CAGAUUAU G UCAGAAAA	4188	TTTTCTGA GGCTAGCTACAACGA ATAATCTG 5474
3500 AGAUGCUC G CCUCCCUU 4191 AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477 3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3494	AAAAGGAG A UGCUCGCC	4189	GGCGAGCA GGCTAGCTACAACGA CTCCTTTT 5475
3513 CCUUUGAA A UGGAUGGC 4192 GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478 3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3496	AAGGAGAU G CUCGCCUC	4190	GAGGCGAG GGCTAGCTACAACGA ATCTCCTT 5476
3517 UGAAAUGG A UGGCCCCA 4193 TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479 3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3500	AGAUGCUC G CCUCCCUU	4191	AAGGGAGG GGCTAGCTACAACGA GAGCATCT 5477
3520 AAUGGAUG G CCCCAGAA 4194 TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480	3513	CCUUUGAA A UGGAUGGC	4192	GCCATCCA GGCTAGCTACAACGA TTCAAAGG 5478
	3517	UGAAAUGG A UGGCCCCA	4193	TGGGGCCA GGCTAGCTACAACGA CCATTTCA 5479
3529 CCCCAGAA A CAAUUUUU 4195 AAAAATTG GGCTAGCTACAACGA TTCTGGGG 5481	3520	AAUGGAUG G CCCCAGAA	4194	TTCTGGGG GGCTAGCTACAACGA CATCCATT 5480
	3529	CCCCAGAA A CAAUUUUU	4195	AAAAATTG GGCTAGCTACAACGA TTCTGGGG 5481

					142		
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 	AAUUUUUG A		4197	<u> </u>	GGCTAGCTACAACGA		5483
3544	UUGACAGA G	UGUACACA	4198	TGTGTACA	GGCTAGCTACAACGA	TCTGTCAA	5484
3546	GACAGAGU G	UACACAAU	4199	ATTGTGTA	GGCTAGCTACAACGA	ACTCTGTC	5485
3548	CAGAGUGU A	CACAAUCC	4200	GGATTGTG	GGCTAGCTACAACGA	ACACTCTG	5486
3550	GAGUGUAC A	CAAUCCAG	4201	CTGGATTG	GGCTAGCTACAACGA	GTACACTC	5487
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3565	AGAGUGAC G	UCUGGUCU	4205	AGACCAGA	GGCTAGCTACAACGA	GTCACTCT	5491
3570	GACGUCUG G	UCUUUUGG	4206	CCAAAAGA	GGCTAGCTACAACGA	CAGACGTC	5492
3578	GUCUUUUUG G	UGUUUUGC	4207	GCAAAACA	GGCTAGCTACAACGA	CAAAAGAC	5493
3580	CUUUUGGU G .	UUUUGCUG	4208	CAGCAAAA	GGCTAGCTACAACGA	ACCAAAAG	5494
3585	GGUGUUUU G	CUGUGGGA	4209	TCCCACAG	GGCTAGCTACAACGA	AAAACACC	5495
3588	GUUUUGCU G	UGGGAAAU	4210	ATTTCCCA	GGCTAGCTACAACGA	AGCAAAAC	5496
3595	UGUGGGAA A	UAUUUUCC	4211	GGAAAATA	GGCTAGCTACAACGA	TTCCCACA	5497
3597	UGGGAAAU A	ບບບບດດວນ	4212	AAGGAAAA	GGCTAGCTACAACGA	ATTTCCCA	5498
3608	UUCCUUAG G	UGCUUCUC	4213	GAGAAGCA	GGCTAGCTACAACGA	CTAAGGAA	5499
3610	CCUUAGGU G	CUUCUCCA	4214	TGGAGAAG	GGCTAGCTACAACGA	ACCTAAGG	5500
3618	GCUUCUCC A	UAUCCUGG	4215	CCAGGATA	GGCTAGCTACAACGA	GGAGAAGC	5501
3620	UUCUCCAU A	UCCUGGGG	4216	CCCCAGGA	GGCTAGCTACAACGA	ATGGAGAA	5502
3628	AUCCUGGG G	UAAAGAUU	4217	AATCTTTA	GGCTAGCTACAACGA	CCCAGGAT	5503
3634	GGGUAAAG A	UUGAUGAA	4218	TTCATCAA	GGCTAGCTACAACGA	CTTTACCC	5504
3638	AAAGAUUG A	UGAAGAAU	4219	ATTCTTCA	GGCTAGCTACAACGA	CAATCTTT	5505
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3650	AGAAUUUU G	UAGGCGAU	4221	ATCGCCTA	GGCTAGCTACAACGA	AAAATTCT	5507
3654	UUUUGUAG G	CGAUUGAA	4222	TTCAATCG	GGCTAGCTACAACGA	CTACAAAA	5508
3657	UGUAGGCG A		4223		GGCTAGCTACAACGA		5509
3670	AAGAAGGA A	CUAGAAUG	4224		GGCTAGCTACAACGA		5510
3676	GAACUAGA A	UGAGGGCC	4225	GGCCCTCA	GGCTAGCTACAACGA	TCTAGTTC	5511
3682	GAAUGAGG G	CCCCUGAU	4226	ATCAGGGG	GGCTAGCTACAACGA	CCTCATTC	5512
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	CUGAUUAU A		4229		GGCTAGCTACAACGA		5515
—	AUUAUACU A		4230		GGCTAGCTACAACGA		5516
-	UAUACUAC A		4231		GGCTAGCTACAACGA		5517
	CACCAGAA A		4232		GGCTAGCTACAACGA		5518
-	CCAGAAAU G				GGCTAGCTACAACGA		5519
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		CCAUGCUG	4235		GGCTAGCTACAACGA		5521
	ACCAGACC A		4236		GGCTAGCTACAACGA		5522
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	CAUGCUGG A		4238		GGCTAGCTACAACGA		5524
		CUGGCACG	4239		GGCTAGCTACAACGA		5525
	GACUGCUG G		4240		GGCTAGCTACAACGA		5526
-	CUGCUGGC A		4241		GGCTAGCTACAACGA		5527
-	CACGGGGA G		4242		GGCTAGCTACAACGA		5528
	GGAGCCCA G		4242		GGCTAGCTACAACGA		5529
	AGUCAGAG A						
			4244		GGCTAGCTACAACGA		5530
	AGAGACCC A		4245		GGCTAGCTACAACGA		5531
	AGACCCAC G		4246		GGCTAGCTACAACGA		5532
	UUUUCAGA G		4247		GGCTAGCTACAACGA		5533
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3777	UUGGUGGA A CAUUUGGG	4249	CCCAAATG GGCTAGCTACAACGA TCCACCAA	5535
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	UUUGGGAA A UCUCUUGC		GCAAGAGA GGCTAGCTACAACGA TTCCCAAA	5537
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	UCUUGCAA G CUAAUGCU		AGCATTAG GGCTAGCTACAACGA TTGCAAGA	
	GCAAGCUA A UGCUCAGC			5539 5540
			GCTGAGCA GGCTAGCTACAACGA TAGCTTGC	
	AAGCUAAU G CUCAGCAG		CTGCTGAG GGCTAGCTACAACGA ATTAGCTT	5541
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	AAGACUAC A UUGUUCUU		AAGAACAA GGCTAGCTACAACGA GTAGTCTT	5547
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	UUCUUCCG A UAUCAGAG	ļ		5548
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	UAUCAGAG A CUUUGAGC		GTCTCTGA GGCTAGCTACAACGA ATCGGAAG	5550
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	CUUUGAGC A UGGAAGAG			5552
	GGAAGAGG A UUCUGGAC	4268	CTCTTCCA GGCTAGCTACAACGA GCTCAAAG GTCCAGAA GGCTAGCTACAACGA CCTCTTCC	5553 5554
	GAUUCUGG A CUCUCUCU		AGAGAGAG GGCTAGCTACAACGA CCAGAATC	5555
	CUCUCUCU G CCUACCUC		GAGGTAGG GGCTAGCTACAACGA AGAGAGAG	5556
	CUCUGCCU A CCUCACCU		AGGTGAGG GGCTAGCTACAACGA AGGCAGAG	5557
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	GGAAGUAU G UGACCCCA		TGGGGTCA GGCTAGCTACAACGA ATACTTCC	5564
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3980	UCUGCAGA A CAGUAAGC	4292	GCTTACTG GGCTAGCTACAACGA TCTGCAGA	5578
3983	GCAGAACA G UAAGCGAA	4293	TTCGCTTA GGCTAGCTACAACGA TGTTCTGC	5579
3987	AACAGUAA G CGAAAGAG	4294	CTCTTTCG GGCTAGCTACAACGA TTACTGTT	5580
3995	GCGAAAGA G CCGGCCUG	4295	CAGGCCGG GGCTAGCTACAACGA TCTTTCGC	5581
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4017	GUAAAAAC A UUUGAAGA	4301	TCTTCAAA GGCTAGCTACAACGA GTTTTTAC	5587
			·	

			144	
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4027	UUGAAGAU A UCCCGUUA	4303	TAACGGGA GGCTAGCTACAACGA ATCTTCAA 558	39
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4079	CCAGACGG A CAGUGGUA	4313	TACCACTG GGCTAGCTACAACGA CCGTCTGG 559	99
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4137	ACCAAAUU A UCUCCAUC	4324	GATGGAGA GGCTAGCTACAACGA AATTTGGT 561	
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	GGGAGUCU G UGGCAUCU	4333	AGATGCCA GGCTAGCTACAACGA AGACTCCC 561	
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4232			CATCGGAG GGCTAGCTACAACGA GATATCCG 563	
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						145		
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4316	AACCGGUA	G	CACAGCCC	4365	GGGCTGTG	GGCTAGCTACAACGA	TACCGGTT	5651
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4335	AUUCUCCA	G	CCUGACUC	4359	GAGTCAGG	GGCTAGCTACAACGA	TGGAGAAT	5655
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4351				4372		GGCTAGCTACAACGA		5658
	GGGACCAC	_		4373		GGCTAGCTACAACGA		5659
	CACACUGA	_		4374		GGCTAGCTACAACGA		5660
	cuccuccu			4375		GGCTAGCTACAACGA		5661
	AAAAGGAA	_		4376		GGCTAGCTACAACGA		5662
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	AAGCAUCC	_		4378		GGCTAGCTACAACGA		5664
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	UCCCGGAC			4382		GGCTAGCTACAACGA		5668
	CGGACAUC			4383		GGCTAGCTACAACGA		5669
	GACAUCAC	_		4384		GGCTAGCTACAACGA		5670
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	 	G		4386		GGCTAGCTACAACGA		5672
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	AAGUAGCC			4395		GGCTAGCTACAACGA		5681
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	CGCAUUUG			4397		GGCTAGCTACAACGA		5683
	UGAUUUUC			4398		GGCTAGCTACAACGA		5684
	UCAUUUCG		CAACAGAA	4399		GGCTAGCTACAACGA		5685
	UUUCGACA			4400		GGCTAGCTACAACGA		5686
	GAAAAAGG			4401		GGCTAGCTACAACGA		5687
	GACCUCGG			4402		GGCTAGCTACAACGA		5688
	CUCGGACU	G		4403		GGCTAGCTACAACGA		5689
			CCAGUCUU	4404		GGCTAGCTACAACGA		5690
			UCUUCUAG	4405		GGCTAGCTACAACGA		5691
	UCUUCUAG			4406		GGCTAGCTACAACGA		5692
4531	UUCUAGGC	A	UAUCCUGG	4407	CCAGGATA	GGCTAGCTACAACGA	GCCTAGAA	5693

4535 [UDAGGOLU A UCCUGGA] 4408 TTCCAGGA GG CUTUGUIGAC 4695 GGARGAG G CUTUGUIGAC 4691 ATCACAGA GGCTAGCTACAGGA AGCCTCT 5696 4549 RAGAGGUU G USACCCAN 4410 TTGGGTCA GGCTAGCTACAACGA AGCCTCT 5696 4550 RACCCAAGA 4411 TTCTTGGG GGCTAGCTACAACGA ACACACC 5697 4560 ACCCAAGA 4411 TTCTTGGG GGCTAGCTACAACGA ACACACC 5697 4560 ACCCAAGA 4413 CACAGACA GGCTAGCTACAACGA ACTCTT 570 4564 AGAGACA GUUCUCCU 4414 GACACAGA GGCTAGCTACAACGA ACACTCT 570 4576 BUGUCUCU 4415 GACACAGA GGCTAGCTACAACGA ACACACC 5702 4581 DUGUCCCA 4418 CAGGTCACTACAACGA ACAGCACC 5702 4582 CUCCAGU G UUCUCUCU 4418 CAGGTCACTACAACGA ACAGCACC 5702 4581 GUUCCACCA GUUGUACC 4418 CAGGTCACTACAACGA ACACACCA 5704 4587 CAGUUCUA AUCACAACAACAACAAACAAAAAAAAAAAAAAAAAAAA					146		
4519 AGASGUU G UGACCCAA 4410 TTGTGTGC GGCTAGCTAACGA AAGCCTCT 5696 4552 GGCUUSUG A CCCAAGAA 4111 TTCTTGGG GGCTAGCTACAACGA CACAACCC 5697 4562 ACCCAAGAA A UGUGUUCU 4412 CAGACAAA GGCTAGCTACAACGA TTGTTGG 5698 4562 CCCAAGAAU G UGUGUUCU 4413 CACACAAA GGCTAGCTACAACGA ATTGTTGG 5699 4568 AUGUGUGU G UGUGUUCU 4415 AGAACACAA GGCTAGCTACAACGA ATTGTTGG 5699 4568 AUGUGUCU G UGUGUUCU 4415 AGAACACAA GGCTAGCTACAACGA AGACCACT 5700 4568 AUGUGUCU G UGUCUUCU 4415 AGAACACA GGCTAGCTACAACGA AGACCACC 5702 4561 UGUCCCAC G UGUGAACC 4417 AGTCAACA GGCTAGCTACAACGA AGACCACC 5702 4583 CUCCCAGU G UUGACCU 4418 CAGGTCAA GGCTAACGTAACGA ACAGACAC 5704 4583 CUCCCAGU G UUGACCU 4418 CAGGTCAA GGCTAACGTAACGA ACAGACAC 5704 4583 CUCCCAGU G UUGACCU 4419 GGATCAG GGCTAGCTACAACGA ACAGACAC 5705 4583 CUCCCAGU G UUGAACCU 4419 AAAGAGGA GGCTAGCTACAACGA ACGGACACA 5607 CUUUCUUC A UUCAAAAA 4421 TAAATGAA GGCTAGCTACAACGA CAGACCTG 5705 4605 CUUUUUC A UUCAAAAA 4422 TAAATGAA GGCTAGCTACAACGA CAACACTG 5706 4605 CUUUCAUUC A UUCAAAAA 4422 TATTTAAA GGCTAGCTAACGA AGACGAAAAAA 6609 UUUCAAUUC A UUCAAAAA 4422 TATTTAAA GGCTAGCTACAACGA AATGAAAA 5708 4620 MAAAAAGC A UUAACAGA 4424 CATGATAA GGCTAGCTACAACGA AATGAAAA 5708 4620 MAAAAAGC A UUAACAGA 4425 GGGCATGA GGCTAGCTACAACGA AATGAAAA 5708 4621 AUAACACU A UCAUCCU 4425 GGGCATGA GGCTAGCTACAACGA AATGAATA 5708 4622 AAAGCAUU A UCAUCCC 4425 GGGCATGA GGCTAGCTACAACGA AATGATAT 5710 4623 AAAGCAUU A UCAUCCC 4425 GAGGCAG GGCTAGCTACAACGA AATGATAT 5711 4634 AUGCCCCU G CUGCGGGU 4426 CAGGGGG GGCTAGCTACAACGA AATGATAT 5713 4634 AUGCCCCU G CUGCGGGU 4426 CAGGGGG GGCTAGCTACAACGA AATGATAT 5713 4634 AUGCCCCU G CUGCGGGU 4426 CAGGGGG GGCTAGCTACAACGA AGAGAAAA 4631 AUGCCCCU G CUGCGGGU 4429 GAGACCCG GGCTAGCTACAACGA AGCAGAGA 5713 4634 AUGCCCCU G CUGCACC 4430 TAGACCA GGCTAGCTACAACGA AGCAGAGA 5713 4634 AUGCCCCU G CUGCACC 4430 TAGACCA GGCTAGCTACAACGA ATGATATAT 5713 4636 GUUUAAGA A CAAAGACC 4430 TAGACCA GGCTAGCTACAACGA ATGATATAT 5713 4636 GUUUAGA A CAAAGAGC 4430 TAGACCA GGCTAGCTACAACGA ATGATATAT 5718 4637 AACAAAGA G CUUCAACC 4430 TAGACCA GGCTAGCTACAACGA ATGATATAT 5721 4646	4533	CUAGGCAU A UCCUGGAA	4408	TTCCAGGA	GGCTAGCTACAACGA	ATGCCTAG	5694
4552 GGCUUGUG A CCCAAGAA 4411 TTCTTGGG GGCTAGCTACAACGA CACAAGCC 5697 4560 ACCCAAGA A UGUGUCUG 4412 CAGACACA GGCTAGCTACAACGA TCTTGGGT 5698 4564 AAGARUGU G UCUGUGUC 4413 CACAGACA GGCTAGCTACAACGA ACTCTTT 5700 4568 AUGUGUCUG G 4131 CACAGACA GGCTAGCTACAACGA ACTCTTT 5700 4568 AUGUGUCUG G UGUCUUCUC 4415 AGAAGACA GGCTAGCTACAACGA ACACTCTT 5701 4561 UUCUCCCA G UGUCUUCUC 4416 GAGAGAGA GGCTAGCTACAACGA AGACACA 75701 4561 UUCUCCCA G UGUCUUCU 4415 GAGAGAGA GGCTAGCTACAACGA AGACACA 75701 4561 UUCUCCCA G UGUUCUCC 4416 GAGAGAGA GGCTAGCTACAACGA ACGACAC 5701 4561 UUCUCCCA G UGUUCUCU 4418 CAGGTCAA GGCTAGCTACAACGA ACGACAC 5703 4582 CUCCCAGU G UUGACCU 4419 GGTCAACG GGCTAGCTACAACGA ACTGGGAG 5704 4583 CUCCCAGU G UUGACCU 4419 GGATCAGG GGCTAGCTACAACGA ACTGGGAG 5704 4584 CAGUGUUU A UCCUUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAACACTG 5705 4592 UUGACUUC A UUCAAAAA 4221 TAAATGAA GGCTAGCTACAACGA CAACACTG 5706 4605 CUUUUUUC A UUCAAAAA 4222 TTTTTAAA GGCTAGCTACAACGA GAACACTG 5706 4618 UUUAAAAA G CAUUACA 4423 TGATAATG GGCTAGCTACAACGA GAACACAA 5706 4618 UUUAAAAA G CAUUACA 4423 TGATAATG GGCTAGCTACAACGA GAACACAA 5708 4626 CAAUAAAAC A UCACUCUU 4426 CAGGATAA GGCTAGCTACAACGA GAACACAA 5708 4626 CAAUAAAA UCAUCCU 4425 GGGCATGA GGCTAGCTACAACGA GAATGAAA 5708 4628 AUGUCAUC A UCCUCUU 4426 CAGGAGA GGCTAGCTACAACGA GAATAAAA 5708 4628 AUGUCAUC A UCCUCUAU 4427 GAGAGGG GGCTAGCTACAACGA CATTTTA 5710 4628 AUGUCAUC A UGCCCUCU 4426 CAGGGAG GGCTAGCTACAACGA ATTGTTTA 5710 4628 AUGUCAUC A UGCCCUCU 4427 AGCAGGGG GGCTAGCTACAACGA ATTGTTTA 5711 4638 AUGUCAUCA UGCCCUCU 4429 AGCAGGGG GGCTAGCTACAACGA CATTATAT 5713 4634 AUGCCCU G CUGCGGUU 4426 ACCCCAG GGCTAGCTACAACGA CATTATAT 5714 4639 GCCCUCCU G CUGCGGUU 4426 ACCCCAG GGCTAGCTACAACGA CATTATAT 5714 4631 GUGUCACC A UGGGGUU 4428 ACCCCAG GGCTAGCTACAACGA CATTATAT 5714 4644 MCCCCCUCCA 4436 TGCTAGAA GGCTAGCTACAACGA CATTATAT 5714 4656 GGGUUUCAA CAAGAGC 4437 TGGGCTAGCTACAACGA CATTATAT 5714 4657 AACAAGA G CUUCAAA 4439 TGTCTAAA GGCTAGCTACAACGA CATTTTTT 5714 4660 AAGAGAG G UUCAAAC 4437 TGGGCTAGCTACAACGA TCTTTGT 5728 4667 AACAAGA G CUUCAAA 4439 TGTCT	4545	UGGAAGAG G CUUGUGAC	4409	GTCACAAG	GGCTAGCTACAACGA	CTCTTCCA	5695
4560 ACCLARGA A USUBUCUG 4412 CAGACAC GGCTAGCTACAACGA TCTTGGGT 5698 4562 COARGAAU G USUCUGUG 4413 CACAGACA GGCTAGCTACAACGA ATTCTTGG 5699 4564 ARGARAUS G USUCUGUC 4415 AGACAGA GGCTAGCTACAACGA ACTTCTT 5700 4568 AUGUGUCU G USUCUUCU 4415 AGACAGA GGCTAGCTACAACGA AGACACT 5701 4568 AUGUGUCU G USUCUUCU 4415 AGACAGA GGCTAGCTACAACGA AGACACAT 5701 4570 GUGUCUGU G USUCUUCU 4415 AGACAGA GGCTAGCTACAACGA AGACACAT 5701 4581 USUCCCCA G USUGUGAC 4417 GGTCAGACA GGCTAGCTACAACGA AGACAC 5702 4583 CUCCCAGU G UUGACCU 4418 CAGGTCAA GGCTAGCTACAACGA ACGAGCAC 5703 4583 CUCCCAGU G UUGACCU 4419 GGATCAG GGCTAGCTACAACGA ACGACAC 5704 4585 UUGACCUG A UCCUCUU 4420 AAGACAG GGCTAGCTACAACGA AGACACT 5705 4582 UUGACCUG A UCCUCUU 4421 AAGACAGA GGCTAGCTACAACGA AGACACT 5705 4582 UUGACCUG A UCCUCUU 4421 TAAATGAA GGCTAGCTACAACGA GAACACTG 5706 4605 CUUUUUUC A UUCAACAA 4422 TATATTAA GGCTAGCTACAACGA GAACACTG 5706 4605 CUUUUUCA AUUCAAAAA 4422 TATATTAA GGCTAGCTACAACGA GAACACTG 5706 4618 UUUAAAAA G CAUUAUCA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAA 5708 4618 UUUAAACA A UCAUACAC 4425 GGCACATG GGCTAGCTACAACGA GATATAA 5709 4620 UAAAAAGC A UUAUCAG 4424 CATCATAA GGCTAGCTACAACGA GATATAA 5709 4623 AAAGCAU A UCAUGCC 4426 CAGGGGCA GGCTAGCTACAACGA ATTGATAC 5711 4623 AAAGCAU A UCAUGCC 4426 CAGGGGCA GGCTAGCTACAACGA ATTGATAC 5712 4624 AUGCCCCU G CUGCGGU 4426 CAGGGGCA GGCTAGCTACAACGA ATGATAC 5712 4624 AUGCCCCU G CUGCGGU 4426 CAGGGGCA GGCTAGCTACAACGA AGCAGGGA 5713 4631 MUGCCCCU G CUGCGGU 4426 CAGGGGCA GGCTAGCTACAACGA AGCAGGGA 5713 4641 GCCUCACCA 4430 TGGTGAGA GGCTAGCTACAACGA AGCAGGG 5714 4646 CGGGUCU A CAUAGGU 4429 AGACACG GGCTAGCTACAACGA AGCAGGG 5714 4646 CGGUUCAA CAUAGGU 4429 AGACACG GGCTAGCTACAACGA AGCAGGG 5714 4651 AUGCCCCU G CAGGGCA GCTAGCTACAACGA AGCAGGA 5716 4652 AGACAGGA G UUUAAAC 4431 TGGTGAGA GGCTAGCTACAACGA AGCAGGG 5717 4653 AAGACAAGA A CAAAGAG 4431 TGTCTAAA GGCTAGCTACAACGA AGCAGGA 5716 4654 CAGGUCU A CAUAGGU 4441 TAGCTAG GGCTAGCTACAACGA CAGGAGCA 5718 4656 AACAAGAGA G CUUCAAA 4431 TGTCTAAA GGCTAGCTACAACGA CAGGAGCA 5719 4677 UUCAAGCA A UGCCCCCU 4443 GCCCCGGG GGCTAGCTACA	4549	AGAGGCUU G UGACCCAA	4410	TTGGGTCA	GGCTAGCTACAACGA	AAGCCTCT	5696
4562 CCAAGAAU G UGUCUGUG 4413 CACAGACA GGCTAGCTACAACGA ATTCTTGG 5699 4564 AAGAAUGU G UCUGUGUC 4414 GACACAGA GGCTAGCTACAACGA ACATTCTT 5700 4568 AUGUGUGU G UCUUCUC 4416 GACACAGA GGCTAGCTACAACGA ACACACAT 5701 4570 GUGUCUGU G UCUUCUCC 4416 GAGAGAGA GGCTAGCTACAACGA ACACACAT 5701 4570 GUGUCUGU G UCUUCUCC 4416 GAGAGAGA GGCTAGCTACAACGA ACAGACACAT 5701 4581 UUCUCCCCA G UGUUGACC 4417 GGTCAACA GGCTAGCTACAACGA ACAGACACT 5703 4582 GUCCCCAGU G UUGACCUG 4418 CAGGTCAA GGCTAGCTACAACGA ACAGGACAC 5703 4587 CAGUGUUG A CCUGADICC 4419 GAGTCAAC GGCTAGCTACAACGA CAGGACAC 5706 4587 CAGUGUUG A CCUCUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAGACACT 5705 4592 UUGACCUG A UCCUCUU 4420 AAAGAGGA GGCTAGCTACAACGA CAGACACT 5706 4592 UUUCAUUC A UUCAUUUA 4421 TAAATGAA GGCTAGCTACAACGA GAATGAAA 5706 4605 CUUUUUUC A UUCAUUUA 4421 TAAATGAA GGCTAGCTACAACGA GAATGAAA 5706 4618 UUUAAAAA G CAUUAUCA 4423 TATAATG GGCTAGCTACAACGA GAATGAAA 5708 4618 UUUAAAAA G CAUUAUCA 4424 CATGATAA GGCTAGCTACAACGA GAATGAAA 5708 4620 UAAAAAC A UUAUCAU 4424 CATGATAA GGCTAGCTACAACGA GTTTTTAAA 5709 4626 GCAUUAUC A UGCCCCUG 4425 GGGCAGGA GGCTAGCTACAACGA GATGATAT 5711 4626 GCAUUAUC A UGCCCCUG 4427 AGCAGGG GGCTAGCTACAACGA GATGATAT 5713 4634 AUGCCCC G CUGCGGGU 4427 AGCAGGG GGCTAGCTACAACGA ATGATAT 5713 4634 AUGCCCCU G CUGCGGGU 4428 ACCCGCAG GGCTAGCTACAACGA AGCGACG 5714 4646 UGCUGCGG G UCCCACCA 4430 TAGTAGA GGCTAGCTACAACGA AGCGACG 5714 4647 ACCCUCCC A CAUGGGU 4431 ACCCAGG GGCTAGCTACAACGA AGCACCC 5714 4649 GUCUCCACCA 4430 TAGTAGAGA GGCTAGCTACAACGA AGCACCC 5714 4649 GUCUCCACCA 4430 TAGTAGAGA GGCTAGCTACAACGA CAGAGACCC 5714 4649 GUCUCCACCA 4430 TAGTAGA GGCTAGCTACAACGA CAGAGACCC 5714 4659 ACCCAGAG GUCCACCA 4430 TAGTAGA GGCTAGCTACAACGA CAGAGAC 5718 4650 AAAGAAGA GUUCCACCA 4430 TAGTAGA GGCTAGCTACAACGA CAGAGAC 5718 4651 AACAGAGA GUUCCACCA 4430 TAGTAGA GGCTAGCTACAACGA CAGAGAC 5718 4651 ACCAGAG GUUCAACA 4430 TAGTAGA GGCTAGCTACAACGA CAGAGAC 5718 4652 GUUCAACA GCAACGA 4430 TAGTAGA GGCTAGCTACAACGA CAGAGAC 5718 4653 CACCAGAG G UUAGAAC 4431 TAGTAGAGA GGCTAGCTACAACGA TCTATTGT 5721 4654 GUUCAACA G CAUCUCGAA 443	4552	GGCUUGUG A CCCAAGAA	4411	TTCTTGGG	GGCTAGCTACAACGA	CACAAGCC	5697
4564 AAGANUGU G UCUGUGUC 4415 AGANCAGA GGCTAGCTACAACGA ACATTCTT 5700	4560	ACCCAAGA A UGUGUCUG	4412	CAGACACA	GGCTAGCTACAACGA	TCTTGGGT	5698
4568 NUGUIGUCU G UGUCUUCU 4415 AGAAGAC AGCTAGCTACAACGA AGACACAT 5701 4570 GUGUCUGU G UCUUCUCC 4416 GAGAAGA GGCTAGCTACAACGA ACAGACAC 5702 4581 UUCUCCCA G UGUUGACC 4417 GGTCAACA GGCTAGCTACAACGA ACAGACAC 5702 4583 CUCCCAGU G UUGACCUG 4418 CAGGTCAA GGCTAGCTACAACGA ACAGACAC 5703 4583 CUCCCAGU G UUGACCUG 4418 CAGGTCAA GGCTAGCTACAACGA ACTGGGAGA 5704 4587 CAGUGUUG A UCCAUUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAGGTCAA 5706 4592 UUGACCUG A UCCAUUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAGGTCAA 5706 4505 CUUUUUUC A UUCAAUUUA 4421 TAAATGAA GGCTAGCTACAACGA GAGACAA 5706 4506 UUUCAAUC A UUCAAUAA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAG 5707 4509 UUUCAAUC A UUUAAAAA 4422 TTTTTAAA GGCTAGCTACAACGA GAAAAAG 5707 4518 UUUAAAAA G CAUUAUCA 4423 TGATAATG GGCTAGCTACAACGA GATTATAA 5709 4520 UAAAAAG C AUUALCAUCA 4423 TGATATA GGCTAGCTACAACGA ATTATTAAA 5709 4523 AAAGCAUU A UCAUUCCC 4425 GGGCATGA GGCTAGCTACAACGA ATTATTAA 5710 4526 GCAUUAUC A UGCCCCUC 4426 CAGGGGCA GGCTAGCTACAACGA ATTATTAC 5711 4526 GCAUUAUC A UGCCCCUC 4427 AGCAGGGG GGCTAGCTACAACGA ATTATTC 5712 4528 AUUAUCAU G CCCUGCU 4428 ACCCGCAG GGCTAGCTACAACGA ATTATATC 5713 4531 CCCUGCU G CUGCAGGU 4428 ACCCGCAG GGCTAGCTACAACGA ATGATATC 5713 4532 CCCUGCU G CUGCAGGU 4428 ACCCGCAG GGCTAGCTACAACGA ATGATATC 5714 4533 CCCCUGCU G CUGCAGCU 4429 AGCAGGGG GGCTAGCTACAACGA AGGGCAT 5714 4543 GUCUCACC A CAUUGGU 4421 ACCCGCAG GGCTAGCTACAACGA AGGGCAT 5714 4544 GGUUCAC A CAUUGGU 4431 ACCCATGG GGCTAGCTACAACGA AGGGCAT 5716 4546 GUUUAGA A CAAAGAGC 4431 TGTGAGA GGCTAGCTACAACGA AGGACCCO 5717 4547 AGCUUCAC A CAUUGGU 4431 ACCCATGG GGCTAGCTACAACGA AGGACCCO 5717 45469 GUCUCAC A CAUUGGU 4431 ACCCATGG GGCTAGCTACAACGA AGGACCCO 5717 4560 GUUUAGA A CAAAGAGC 4433 GTTCTAAA GGCTAGCTACAACGA TCTTATAC 5720 4677 UCAAAGAA G CUUCAAC 4431 GCTCTTTG GGCTACAACGA TCTTATAC 5720 4677 UCAAAGAA G CUUCAAC 4436 GCTCATTTG GGCTACAACGA TCTTATAC 5721 4678 AGCAUUCA A CAUUGCU 4441 ACCCAGTAG GGCTACAACGA TCTTATCT 5724 4679 UCAAAGAA G CUCCACA 4437 TGGGGCAG GGCTACAACGA TCTTTATT 5721 4730 AAGAGAU G CUCCACA 4436 GCCTATG GGCTACCAACGA TCTTTATT 5727 4746 GGUUCAAC A	4562	CCAAGAAU G UGUCUGUG	4413	CACAGACA	GGCTAGCTACAACGA	ATTCTTGG	5699
4570 GUGUCUGU G UCUUCUCC 4416 GGAGAAGA GGCTAGCTACAACGA ACAGACAC 5702 4581 UUCUCCCA G UGUUGACCU 4417 GGTCAACA GGCTAGCTACAACGA TGGGAGAA 5703 4582 GUCCCAGU G UUGACCU 4418 CAGGTCAAC GGCTAGCTACAACGA ACAGACAC 5705 4582 UUGACCUG A UCCUCUUU 4420 AAAGAGGA GGCTAGCTACAACGA ACACACTG 5705 4592 UUGACCUG A UCCUCUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAACACTG 5705 4592 UUGACCUG A UCCUCUUU 4421 TAAATGAAG GGCTAGCTACAACGA CAACACTG 5706 4599 UUUCAUUC A UUCAAAAA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAAA 5708 4518 UUUAAAAA G CAUUAUCA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAAA 5708 4518 UUUAAAAA G CAUUAUCA 4421 TAAATGAA GGCTAGCTACAACGA GAATGAAA 5708 4518 UUUAAAAA G CAUUAUCA 4424 CATCATAA GGCTAGCTACAACGA GTTTTTAA 5709 4620 UAAAAAGC A UUAUCAUG 4424 CATCATAA GGCTAGCTACAACGA ATTGCTTTA 5710 4523 AAAGCAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA ATTGCTTTA 5710 4626 CCAUUAUC A UCCUCGCU 4427 AGCAGGGC GGCTAGCTACAACGA ATTGATAAT 5704 4628 AUUAUCAU G CCCUCGCU 4427 AGCAGGGC GGCTAGCTACAACGA ATGATAAT 5713 4634 AUGCCCCU G CUGCGGCU 4427 AGCAGGG GGCTAGCTACAACGA ATGATAAT 5713 4634 AUGCCCCU G CUGCGGCU 4429 GAGACCCC GGCTAGCTACAACGA AGGAGCAC 5714 4637 CCCCUGCU G CGGGUCU 4429 GAGACCCC GGCTAGCTACAACGA AGGAGCG 5716 4641 UGCUGCGC G CUCCACCA 4430 TGGTGAGA GGCTAGCTACAACGA AGGAGCG 5716 4641 UGCUGCGC G CUCCACCA 4430 TGGTGAGA GGCTAGCTACAACGA AGGAGCG 5716 4646 CGGGUCUC A CCAUGAGU 4431 ACCCATGG GGCTAGCTACAACGA CGCAGGA 5716 4649 GUCUCACC A UGGGUUUA 4431 ACCCATGG GGCTAGCTACAACGA CGCAGGA 5716 4640 GGGUUAGA A CAAAGACC 4433 TCCTAGA GGCTAGCTACAACGA CGTAGGTC 5719 4650 AGCAAAGA C CUUCAAGA 4433 GCCCTTGT GGCTAGCTACAACGA CGTAGGTC 5720 4660 AACAAAGA C CUUCAAGA 4433 GCCCTTGT GGCTAGCTACAACGA CTTGATC 5720 4670 UUCAAGC A UGGCCCU 4436 GCCTTGT GGCTAGCTACAACGA TCTTTGT 5721 4668 AUGCCCC A UGGCCCU 4436 GCCTTGT GGCTAGCTACAACGA TCTTTGT 5721 4670 UCAAGGA C UCUCAAC 4436 GCCTTGT GGCTAGCTACAACGA TCTTTGT 5721 4670 UCAAGCA A CCCUCCA 4436 GCCTTGT GGCTAGCTACAACGA TCTTTGTT 5721 4670 AACAAAGA C CAUCUCG 4440 TACTGGCTA GGCTAGCTACAACGA TCTTTTTT 5721 4670 UCAAGCA C UCUCAACA 4430 TTGAGGC AGCTAGCTACAACGA TCTTTTTT 57	4564	AAGAAUGU G UCUGUGUC	4414	GACACAGA	GGCTAGCTACAACGA	ACATTCTT	5700
4581 UUCUCCCA G UGUQACC 4417 GGTCAACA GGCTAGCTACAACGA TGGGAGAA 5703 4583 CUCCCAGU G UGACCUG 4418 CAGGTCAA GGCTAGCTACAACGA ACTGGGAG 5704 4587 CAGUGUUG A CCUGAUCC 4419 GGATCAGG GGCTAGCTACAACGA ACTGGGAG 5704 4582 UGGACCUG A UCCUCUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAGCACTC 5705 4592 UUGACCUG A UCCUCUUU 4421 AAAGAGGA GGCTAGCTACAACGA CAGGTCAA 5706 4605 CUUUUUUC A UUCAAUAAA 4422 TATATAAA GGCTAGCTACAACGA GAATGAAA 5708 4618 UUUAAAAA G CAUUAUCA 4421 TGATAATA GGCTAGCTACAACGA GAATGAAA 5708 4620 WAAAAAGC A UUAUCAMU 4421 TGATAATA GGCTAGCTACAACGA GATTGAAA 5708 4620 WAAAAAGC A UUAUCAMU 4422 TATATAAA GGCTAGCTACAACGA GATTGAAA 5709 4620 WAAAAAGC A UUAUCAMU 4424 CATGATAA GGCTAGCTACAACGA ATTGTTTA 5710 4623 AAAGCAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA ATTGTTT 5711 4624 AAAGCAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA ATTGTTT 5711 4626 GCAUUAUC A UCCCCCUG 4426 CAGGGGCA GGCTAGCTACAACGA ATTGTTT 5711 4626 CAUUAUCAU G CCCCUGCU 4427 AGCAGGGG GGCTAGCTACAACGA ATTGTTT 5713 4636 WUAUCAU G CCCCUGCU 4427 AGCAGGGG GGCTAGCTACAACGA ATTGTATA 5713 4637 CCCCUGCU C CGGGGUCU 4429 AGCACGCG GGCTAGCTACAACGA AGCAGGGG 5715 4641 WCCUCCAC A CAUGGGU 4429 AGCACCCG GGCTAGCTACAACGA AGCAGGGG 5715 4646 WCCUCCAC A CAUGGGUU 4431 ACCATGG GGCTAGCTACAACGA AGCAGGGG 5716 4646 WCCUCCAC A CAUGGGUU 4431 ACCATGG GGCTAGCTACAACGA AGCAGGGG 5716 4646 WCCUCCAC A CAUGGGUU 4431 TAAACCCA GGCTAGCTACAACGA AGCAGGGG 5718 4650 ACCAUGG G WUAGAAC 4433 GTCTTAAA GGCTAGCTACAACGA ACGAGGGG 5718 4660 AGCAAUG C CUUCAACC 4436 GGCCATG GGCTAGCTACAACGA TCTTATGT 5721 4670 WUCAAGCA A UGCCCCA 4436 GGCCATG GGCTAGCTACAACGA TCTTTTGT 5721 4671 WUCAAGCA A CAACAGCC 4436 GGCCATG GGCTAGCTACAACGA TCTTTTGT 5721 4670 WUCAAGCA A UGCCCCA 4436 GGCCATG GGCTAGCTACAACGA TCTTTTGT 5721 4671 WUCAAGCA A UGCCCCA 4436 GGCCATG GGCTAGCTACAACGA TCTTTTGT 5721 4671 WUCAAGCA A UGCCCCA 4436 GGCCATG GGCTAGCTACAACGA TCTTTTGA 5726 4676 AACAAUG G CAUCCCA 4436 GGCCATG GGCTAGCTACAACGA TCTTTTGA 5726 4677 WCAAGAA G CUUCCAAA 4437 TGGGGCA GCCTAGCTACAACGA TCTTTTGA 5736 4730 AACAAAGA C CUCCCAAA 4437 TGGGGCA GGCTAGCTACAACGA ACTTCTTT 5724 476	4568	AUGUGUCU G UGUCUUCU	4415	AGAAGACA	GGCTAGCTACAACGA	AGACACAT	5701
4583 CUCCCAGU G UUGACCUG 4418 CAGGTCA GGCTAGCTACAACGA ACTGGGAG 5704 4587 CAGUGUUG A CCUGAUCC 4419 GGATCAGG GGCTAGCTACAACGA CAACACTG 5705 4592 UUGACCUG A UCCUCUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAGACACTG 5706 4605 CUUUUUUC A UUCAUUUU 4421 TAAATGAA GGCTAGCTACAACGA CAGACACACACACACACACACACACACACACA	4570	gugucugu g ucuucucc	4416	GGAGAAGA	GGCTAGCTACAACGA	ACAGACAC	5702
4587 CAGUGUUG A CCUGAUCC 4419 GGATCAGG GGCTAGCTACAACGA CAACACTG 5705 4592 UUGACCUG A UCCUCUUU 4420 AAAGAGGA GGCTAGCTACAACGA CAGGTCAA 5706 4605 CUUUUUC A UUCAUUUA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAGA 5706 4609 UUUCAUUC A UUCAAUUUA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAGA 5708 4618 UUAAAAA G CAUUAUCA 4423 TGATAATG GGCTAGCTACAACGA TTTTTAAA 5709 4620 UAAAAAGC A UUAUCAUG 4423 TGATAATA GGCTAGCTACAACGA TTTTTAAA 5709 4620 UAAAAAGC A UUAUCAUG 4423 TGATAATA GGCTAGCTACAACGA TTTTTAAA 5709 4620 UAAAAAGC A UUAUCAUG 4425 GGGCATGA GGCTAGCTACAACGA ATTGATTA 5710 4623 AAAGCAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA ATTGATT 5711 4626 GCAUUAUC A UGCCCCUG 4426 CAGGGGG GGCTAGCTACAACGA ATGATAT 5712 4628 AUUAUCAU G CCCCUGCU 4427 AGCAGGG GGCTAGCTACAACGA ATGATAT 5712 4634 AUUGCCCC G CUGGGGGU 4428 ACCCCCAG GGCTAGCTACAACGA ATGATAT 5713 4634 AUUGCCCU G CUGGGGGU 4428 ACCCCCAG GGCTAGCTACAACGA AGGAGGA 5714 4637 CCCCUGCU G CGGGUCU 4428 GAGACCG GGCTAGCTACAACGA AGGAGGA 5714 4641 UGCUGCGG G UCUCACCA 4430 TGGTAGGA GGCTAGCTACAACGA AGGAGGG 5715 4641 UGCUCACC A UGGGUUU 4431 ACCCATGG GGCTAGCTACAACGA AGGACCG 5716 4646 CGGGUCUC A CCAUGGGU 4431 ACCCATGG GGCTAGCTACAACGA CGCAGCA 5716 4653 ACCCAUGG G UUUAGAAC 4433 GTTCTAAA GGCTAGCTACAACGA CGAGCAG 5718 4660 GGUUUAGA A CAAAGAGC 4434 GCTCTTTG GGCTAGCTACAACGA CGAGCAG 5718 4660 GGUUUAGA A CAAAGAGC 4435 GCTTGAAG GGCTAGCTACAACGA CCATGGTG 5719 4660 ACCAAGGA G CAAUGACC 4436 GCCTAGCTACAACGA TCTTTGT 5721 4671 UUCAACCA A UGGCCCA 4436 GCCTAGCTACAACGA TCTTTATT 5721 4672 ACCAAGAG G CUUCAAGC 4436 GCCTAGCTACAACGA TCTTTAGACCT 5720 4674 AGCUUCAA G CAAUGACC 4436 GCCTAGCTACAACGA TCTTTATCT 5724 4680 AAGCAAGA G UACCUGG 4437 TGGGCGA GGCTAGCTACAACGA TCTTTTC 5721 4674 AGCUUCAA G CAAUGACC 4438 GGATGGCTACAACGA TCTTTTT 5721 4670 AAGAAGA G UACCUGG 4441 AGCTTCTAG GGCTAGCTACAACGA TCTTCTTC 5724 4703 AAGUACCA G UACCUGG 4441 AGCTTCTAGAGGA GAGACACA TCTTCTTC 5724 4703 AAGUACA G UACCUGG 4442 CCCAGGTA GGCTAGCTACAACGA TCTTCTTC 5724 4703 AAGUACA G UACCUGGG 4442 CCCAGGTA GGCTAGCTACAACGA TCTCTTCT 5724 4704 ACUGAGAGA A CAAAGAGA 4444 TCTCTTAG GGCTAGC	4581	UUCUCCCA G UGUUGACC	4417	GGTCAACA	GGCTAGCTACAACGA	TGGGAGAA	5703
4592 UUGACCUG A UCCUCUUU 4420 AAAGAGA GGCTAGCTACAACGA CAGGTCAA 5706 4605 CUUUUUUC A UUCAAUAA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAAG 5707 4609 UUUCAUC A UUUAAAAA 4422 TTTTTAAA GGCTAGCTACAACGA GAATGAAA 5708 4618 UUUAAAAA G CAUUAUCA 4423 TGATAATG GGCTAGCTACAACGA GAATGAAA 5708 4620 UAAAAAA G CAUUAUCA 4424 CATGATAA GGCTAGCTACAACGA GCTTTTTA 5710 4620 UAAAAAA A CAGUAUAUCA 4424 CATGATAA GGCTAGCTACAACGA GCTTTTTA 5710 4623 AAAGGAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA ACTGCTT 5711 4624 GAUUAUCA U GCCCCUG 4426 CAGGGCA GGCTAGCTACAACGA ACTGCTT 5712 4628 AUUAUCA U GCCCCUG 4427 AGCAGGGG GGCTAGCTACAACGA ATGATAT 5713 4634 AUGCCCCU G CUGCGGGU 4429 GAGACCC GGCTAGCTACAACGA AGCAGGG 5714 4637 CCCUGCU G CUGCGGGU 4429 GAGACCC GGCTAGCTACAACGA AGCAGGG 5716 4646 CGGUUCA CAGAGGGU 4430 TGGTGAGA GGCTAGCTACAACGA AGCAGGG 5716 4646 CGGUUCA CAGAGGGU 4431 ACCCATGG GGCTAGCTACAACGA AGCAGGG 5716 4646 CGGUUCACC A UGGGUUU 4431 ACCCATGG GGCTAGCTACAACGA AGCAGGG 5716 4649 GUUCAACC A UGGGUUU 4432 TAAACCCA GGCTAGCTACAACGA AGCAGGG 5717 4649 GUUCAACC A UGGGUUU 4431 ACCCATGG GGCTAGCTACAACGA GGTAGCA C5746667 ACCAAAGA G CUUCAACC 4433 GTTCTAAA GGCTAGCTACAACGA CTGTAGGAC 5718 4660 GUUUAGA A CAAAGAGC 4434 GCTCTTTG GGCTAGCTACAACGA CTGTAGGAC 5719 4661 ACCAAGGA G CUUCAAGC 4436 GCTTAGA GGCTAGCTACAACGA CTGTAGGAC 5719 4662 ACCAAGGA G CUUCAAGC 4436 GCTTAGA GGCTAGCTACAACGA TCTAAACC 5720 4667 ACCAAGA G CAUUGAGC 4436 GCTTAGA GGCTAGCTACAACGA TCTAAACC 5720 4667 ACCAAGA G CAUUGAGC 4436 GCTTAGA GGCTAGCTACAACGA TCTTAAACC 5720 4668 AAGCAAGA G CAUUCAAGC 4436 GCTTAGA GGCTAGCTACAACGA TCTTAAACC 5720 4669 ACCAAGGA G CAUUCAAGC 4436 GCTTAGA GGCTAGCTACAACGA TCTTTTT 5721 4669 AAGCAAGA G CAUUCAGA 4430 TTTGAGGA GGCTAGCTACAACGA TCTTTTT 5721 4669 AAGCAAGA G CAUCCU 4441 AGGTAGCTACAACGA TCTTTTT 5721 4669 AAGCAAGA G CAUCCU 4441 AGGTAGCTACAACGA TCTTCTT 5724 4700 AAGAAGA G CAUCCU 4441 AGGTAGCTAGACGA TCTTCTAG TCTTTT 5727 4703 AAGUACCA G CAGCACU 4441 AGGTAGCTAGACGA TCTCTAACC TCTTCTT 5726 4705 GAGCAGC G CAGCACC 4444 AGTAGAGA GGCTAGCTACAACGA TCTCTCT 5731 4736 AACCAUCA G CAGAGGA 4440 TCTCTGA GGCTAG	4583	CUCCCAGU G UUGACCUG	4418	CAGGTCAA	GGCTAGCTACAACGA	ACTGGGAG	5704
4605 CUUUUUUC A UUCAUUUA 4421 TAAATGAA GGCTAGCTACAACGA GAAAAAAG 5707 4609 UUUCAUUC A UUUAAAAA 4422 TTTTTAAA GGCTAGCTACAACGA GAAAAAAG 5708 4518 UUUAAAAAG C AUUAUCAA 4423 TGATAATG GGCTAGCTACAACGA TTTTAAA 5709 4620 UAAAAAG A UUAUCAU 4424 CATGATAA GGCTAGCTACAACGA GCTTTTTA 5710 4623 AAAGCAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA ATGCTT 5711 4624 AAAGCAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA ATGCTT 5711 4628 AUUAUCAU G CCCCUGCU 4427 AGCAGGGG GGCTAGCTACAACGA ATGCTT 5713 4634 AUGCCCCU G CUGCGGUU 4428 ACCCGCAG GGCTAGCTACAACGA ATGATAAT 5713 4634 AUGCCCCU G CUGCGGGU 4428 ACCCGCAG GGCTAGCTACAACGA AGGACGAT 5714 4637 CCCCUGCU C CGGGUCUC 4429 GAGACCC GGCTAGCTACAACGA AGGACGA 5716 4641 UGCUGCGG G UCUCACCA 4430 TGGTGAGA GGCTAGCTACAACGA AGGACGA 5716 4646 CGGGUCUC A CCAUGGGU 4431 ACCCATGG GGCTAGCTACAACGA AGGACGA 5716 4646 CGGGUCUC A CCAUGGGU 4431 ACCCATGG GGCTAGCTACAACGA CGCAGCA 5717 4649 GUUCACC A UGGGUUUA 4432 TAAACCCA GGCTAGCTACAACGA CGCAGCA 5718 4650 GGUUUAGA A CAAAGAGC 4434 GCTCTTTG GGCTAGCTACAACGA CGTAGAGC 5717 4660 GGUUUAGA A CAAAGAGC 4435 GCTTAGAA GGCTAGCTACAACGA CCATGAGT 5719 4660 GGUUUAGA A CAAAGAGC 4436 GCTTAGTAGAACGA CCATGAGT 5719 4667 ACCAAGA G CUUCAAGC 4436 GCTTAGAA GGCTAGCTACAACGA TCTTAAACC 5720 4677 UUCAAGCA A UGGCCCCA 4436 GCTTAGAA GGCTAGCTACAACGA TCTTAAACC 5720 4670 UUCAAGCA A UGCCCAUCC 4436 GGCTAGCTACAACGA TCTTAGACC 5722 4680 AAGCAAUG G CCCCAUCC 4436 GGCTAGCTACAACGA TCTTAGAC 5722 4681 AUGGCCCC A UCCUCAAA 4439 TTTGAGGA GGCTAGCTACAACGA TCTTTGA 5723 4682 AAGCAAUG G UACCAGA 4440 TACTGCTA GGCTAGCTACAACGA TCTTTTG 5727 4683 AAGCACUC G UACCAGA 4441 AGGTACT GGCTAGCTACAACGA TCTTTTT 5727 4703 AAGAAGAA G UACCUGGG 4441 AGGTACT GGCTAGCTACAACGA TCTTTTT 5727 4704 AGGACGA G UACCUGGG 4442 TACTGAT GGCTAGCTACAACGA TCTTTTT 5726 4705 GUAGCAGU A CCCUUGCA 4444 AGTGTAC GGCTAGCTACAACGA TCTTTTT 5726 4714 CCUGGGGA G UACCUGGG 4441 TACTGTA GGCTAGCTACAACGA TCTTTTT 5727 4705 GUAGCAGU A CCCUUCC 4441 AGGTACT GGCTAGCTACAACGA TCTTTTT 5726 4714 CCUGGGGA G UACCUU 4441 AGTGTAG GGCTAGCTACAACGA TCTTCTT 5730 4715 GGCAACU A CACUUCUA 4441 TACTGTA G	4587	CAGUGUUG A CCUGAUCC	4419	GGATCAGG	GGCTAGCTACAACGA	CAACACTG	5705
4609 UUUCAUUC A UUUAAAAA 4422 TTTTTAAA GGCTAGCTACAACGA GAATGAAA 5708 4618 UUUAAAAA G CAUUAUCA 4423 TGATAATG GGCTAGCTACAACGA TTTTTAAA 5709 4620 UAAAAAGC A UUAUCAUG 4424 CATGATAA GGCTAGCTACAACGA GCTTTTTAAA 5710 4623 AAAGCAUU A UCAUGCCC 4425 GGGCATGA GGCTAGCTACAACGA AATGCTTT 5711 4626 GCAUUAUC A UGCCCCUG 4426 CAGGGGCA GGCTAGCTACAACGA AATGCTTT 5712 4628 AUUAUCAU G CCCUGGU 4427 AGCAGGGG GGCTAGCTACAACGA AATGCTTT 5713 4634 AUGCCCCU G CUGCGGGU 4428 ACCCGCAG GGCTAGCTACAACGA AGGGCAT 5714 4637 CCCCUGCU G COGGGGUU 4429 GAGACCCG GGCTAGCTACAACGA AGGGCAT 5714 4638 AUGCCCCU G CUGCAGGU 4429 GAGACCCG GGCTAGCTACAACGA AGGGCAT 5714 4631 GUCUCACC A UGCGGUU 4429 GAGACCCG GGCTAGCTACAACGA AGGACGAG 5716 4641 UGCUGCGG G UCUCAACCA 4430 TGGTGAGA GGCTAGCTACAACGA AGGACGAG 5716 4646 CGGGUUC A CCAUGGGU 4422 TAAACCCA GGCTAGCTACAACGA GAGACCCA 5716 4649 GUCUCACC A UGGGUUA 4431 ACCCATGG GGCTAGCTACAACGA GGGCAGCA 5717 4649 GUCUCACC A UGGGUUA 4432 TAAACCCA GGCTAGCTACAACGA GGGCAGCA 5718 4650 GUUUAGA A CAAAGAGC 4433 GTTCTAAA GGCTAGCTACAACGA CCATGGTG 5719 4660 GGUUUAGA A CAAAGAGC 4434 GCTCTTTG GGCTAGCTACAACGA TCTAAACC 5720 4667 AACAAGA G CUUCAAGC 4435 GCTTGAGG GGCTAGCTACAACGA TCTAAACC 5720 4670 UUCAAGCA A UGGCCCCA 4437 TGGGGCCA GGCTAGCTACAACGA TCTAAACC 5720 4670 UUCAAGCA A UGGCCCCA 4437 TGGGGCCA GGCTAGCTACAACGA TCTTTGT 5721 4668 AAGCAAUG G CCCCAUCC 4438 GGCTATG GGCTAGCTACAACGA TCTTTGT 5724 4669 AGCAAUG G CCCCAUCC 4438 GGCTATG GGCTAGCTACAACGA TCTTTTGT 5724 4669 AAGCAAUG G CCCCAUCC 4439 TTTGAGGA GGCTAGCTACAACGA TCTTTTTA 5724 4669 AAGCAAUG G CCCCAUCC 4439 TTTGAGGA GGCTAGCTACAACGA TCTTTTTT 5724 4669 AAGCAAUG G CCCCAUCC 4439 TTTGAGGA GGCTAGCTACAACGA TCTTTTTT 5724 4669 AAGCAAUG G CACUCCAAA 4439 TTTGAGGA GGCTAGCTACAACGA TCTTTTTT 5724 4703 AAGUACA G UACCUCGG 4442 CCCAGGTA GGCTAGCTACAACGA TCTTTTTT 5727 4703 AAGUACA G UACCUCGA 4441 TACTGTTA GGCTAGCTACAACGA TCTTTTT 5726 4714 CCUGGGGA G CUUCAAAA 4440 TACTGTTA GGCTAGCTACAACGA TCTTTTT 5727 4705 GUACCAGU A CUUCGAA 4440 TACTGTT GGCTAGCTACAACGA TCTTCTT 5730 4714 CCUGGGGA G CUGACAC 4441 TACTGTT GGCTAGCTACAACGA TCTTCTT 57	4592	UUGACCUG A UCCUCUUU	4420	AAAGAGGA	GGCTAGCTACAACGA	CAGGTCAA	5706
4618 UUUAAAAA G CAUUAUCA 4423 TGATAATG GGCTAGCTACAACGA TTTTTAAA 5709 4620 UAAAAAACA UUAUCAUG 4424 CATGATTA GGCTAGCTACAACGA ACTGTTT 5710 4623 AAAGCAUU A UCAUGCCC 4425 GGCATGA GGCTAGCTACAACGA AATGCTTT 5711 4626 GCAUUAUC A UGCCCCUG 4426 CAGGGGCA GGCTAGCTACAACGA AATGCTT 5711 4628 AUUAUCAU G CCCCUGCU 4427 AGCAGGG GGCTAGCTACAACGA ATGATAT 5713 4634 AUGCCCCU G CUGCGGGU 4428 ACCCGCAG GGCTAGCTACAACGA ATGATAT 5713 4634 AUGCCCCU G CUGCGGGU 4429 GAGACCCG GGCTAGCTACAACGA AGCAGGGG 5716 4641 UGCUGCGG G UCUCACCA 4430 TGGTGAGA GGCTAGCTACAACGA AGCAGGGG 5716 4646 CGGGUCU A CCAUGGGU 4429 GAGACCCG GGCTAGCTACAACGA AGCAGGGG 5716 4646 CGGGUCU A CCAUGGGU 4431 ACCCATGG GGCTAGCTACAACGA AGCAGGGG 5716 4646 CGGGUCU A CCAUGGGU 4431 ACCCATGG GGCTAGCTACAACGA GGGAGACC 5716 4649 GUCUCACC A UGGGUUUU 4432 TAAACCCA GGCTAGCTACAACGA GGAGACCC 5717 4649 GUCUCACC A UGGGUUUA 4432 GTCTTAGA GGCTAGCTACAACGA CCATGGT 5719 4653 CACCAUGG G UUUAGAAC 4433 GTCTAGA GGCTAGCTACAACGA CCATGGT 5719 4660 GGUUUAGA A CAAAGAGC 4434 GCTCTTTG GGCTAGCTACAACGA CCATGGT 5719 4667 AACAAAGA G CUUCAAGC 4435 GCCTTGAG GGCTAGCTACAACGA TCTTAGACC 5720 4667 AACAAAGA G CAAUGGCC 4435 GGCCATTG GGCTAGCTACAACGA TCTTTGT 5721 4670 UUCAAGCA A UGGCCCCA 4437 TGGGGCA GGCTAGCTACAACGA TCTTTGT 5721 4671 UUCAAGCA A UGGCCCCA 4437 TGGGGCA GGCTAGCTACAACGA TCTTTGAA 5723 4688 AUGCCCC A UCCUCAAA 4439 TTTGAGGA GGCTAGCTACAACGA TCTTTGAA 5723 4689 AAGCAAUG G CCCCAUCC 4438 GGATGGG GGCTAGCTACAACGA TCTTTGA 5724 4680 AAGCAAUG G CAGUCUC 4441 TACTGCTA GGCTAGCTACAACGA TCTTTTTG 5721 4670 UAAAAGAA G UAGCAGU 4441 AGGTACTG GGCTAGCTACAACGA TCTTTTTT 5724 4671 UCAAAGAA G UAGCAGU 4441 AGGTACTG GGCTAGCTACAACGA TCTTTTTT 5726 4700 AAGAAGUA G CAGUCUC 4441 AGGTACTG GGCTAGCTACAACGA TCTTCTT 5727 4703 AAGUACA G UACCUGGG 4441 TACTGCTA GGCTAGCTACAACGA TCTTCTT 5727 4704 AAGUACAA A CUUCUG 4441 AGGTACTG GGCTAGCTACAACGA TCTCTTT 5727 4705 GUAGCAGU A CCUUCUG 4445 TACTGTA GGCTAGCTACAACGA TCTCTTT 5727 4705 GUAGCAGU A CCUUCUG 4445 TACTGTA GGCTAGCTACAACGA TTCTTCT 5736 4718 GGAGUAA A UAGAAGA 4449 TACTGTA GGCTAGCTACAACGA TTCTTCT 5736 4726 ACCUUCU G U	4605	CUUUUUUC A UUCAUUUA	4421	TAAATGAA	GGCTAGCTACAACGA	GAAAAAAG	5707
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	4775	UGUUGAAG A UGGGAAGG	4458	CCTTCCCA	GGCTAGCTACAACGA	CTTCAACA	5744
4788 AAGGAUUU G CAGGGCUG 4460 CAGCCCTG GGCTAGCTACAACGA AAATCCTT 5746	4784	UGGGAAGG A UUUGCAGG	4459	CCTGCAAA	GGCTAGCTACAACGA	CCTTCCCA	5745
	4788	AAGGAUUU G CAGGGCUG	4460	CAGCCCTG	GGCTAGCTACAACGA	AAATCCTT	5746

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4793	UUUGCAGG G	CUGAGUCU	4461	AGACTCAG	GGCTAGCTACAACGA	CCTGCAAA	5747
4798	AGGGCUGA G	UCUAUCCA	4462	TGGATAGA	GGCTAGCTACAACGA	TCAGCCCT	5748
4802	CUGAGUCU A	UCCAAGAG	4463	CTCTTGGA	GGCTAGCTACAACGA	AGACTCAG	5749
4811	UCCAAGAG G	CUUUGUUU	4464	AAACAAAG	GGCTAGCTACAACGA	CTCTTGGA	5750
4816	GAGGCUUU G	UUUAGGAC	4465	GTCCTAAA	GGCTAGCTACAACGA	AAAGCCTC	5751
4823	UGUUUAGG A	CGUGGGUC	4466	GACCCACG	GGCTAGCTACAACGA	CCTAAACA	5752
4825	UUUAGGAC G	UGGGUCCC	4467	GGGACCCA	GGCTAGCTACAACGA	GTCCTAAA	5753
4829	GGACGUGG G	UCCCAAGC	4468	GCTTGGGA	GGCTAGCTACAACGA	CCACGTCC	5754
4836	GGUCCCAA G	CCAAGCCU	4469	AGGCTTGG	GGCTAGCTACAACGA	TTGGGACC	5755
4841	CAAGCCAA G	CCUUAAGU	4470	ACTTAAGG	GGCTAGCTACAACGA	TTGGCTTG	5756
4848	AGCCUUAA G	UGUGGAAU	4471	ATTCCACA	GGCTAGCTACAACGA	TTAAGGCT	5757
4850	CCUUAAGU G	UGGAAUUC	4472	GAATTCCA	GGCTAGCTACAACGA	ACTTAAGG	5758
4855	AGUGUGGA A	UUCGGAUU	4473	AATCCGAA	GGCTAGCTACAACGA	TCCACACT	5759
4861	GAAUUCGG A	UUGAUAGA	4474	TCTATCAA	GGCTAGCTACAACGA	CCGAATTC	5760
4865	UCGGAUUG A	UAGAAAGG	4475	CCTTTCTA	GGCTAGCTACAACGA	CAATCCGA	5761
4877	AAAGGAAG A	CUAACGUU	4476	AACGTTAG	GGCTAGCTACAACGA	CTTCCTTT	5762
	GAAGACUA A		4477		GGCTAGCTACAACGA		5763
	AGACUAAC G		4478		GGCTAGCTACAACGA		5764
	CUAACGUU A		4479		GGCTAGCTACAACGA		5765
	GUUACCUU G		4480		GGCTAGCTACAACGA		5766
	UUUGGAGA G		4481		GGCTAGCTACAACGA		5767
	UGGAGAGU A		4482		GGCTAGCTACAACGA		5768
	GUACUGGA G		4483		GGCTAGCTACAACGA		5769
<u> </u>	UGGAGCCU G		4484				
					GGCTAGCTACAACGA		5770
	GCCUGCAAAAA		4485		GGCTAGCTACAACGA		5771
	CUGCAAAU G		4486		GGCTAGCTACAACGA		5772
	GCAAAUGC A		4487	[GGCTAGCTACAACGA		5773
-		UGUUUGCU	4488		GGCTAGCTACAACGA		5774
	UGCAUUGU G		4489		GGCTAGCTACAACGA		5775
		CUCUGGUG	4490		GGCTAGCTACAACGA		5776
4936			4491		GGCTAGCTACAACGA		5777
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	GGAGGUGG G		4493		GGCTAGCTACAACGA		5779
	AGGUGGGC A		4494		GGCTAGCTACAACGA		5780
—	GGCAUGGG G		4495		GGCTAGCTACAACGA		5781
	uggggucu g		4496	TTTCAGAA	GGCTAGCTACAACGA	AGACCCCA	5782
	GUUCUGAA A		4497		GGCTAGCTACAACGA		5783
	UCUGAAAU G		4498		GGCTAGCTACAACGA		5784
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5297	GACUGAAU G CGGGAGGU	4563	ACCTCCCG G	GCTAGCTACAACGA	ATTCAGTC	5849
5304	UGCGGGAG G UUCAAUGU	4564	ACATTGAA G	GCTAGCTACAACGA	CTCCCGCA	5850
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				149		
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5400 CGCAAC	CC A UCAGUAUU	4583	AATACTGA	GGCTAGCTACAACGA	GGGTTGCG	5869
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5420 GUUAUU	JUG G CCUCUACU			GGCTAGCTACAACGA		5874
	ICU A CUCCAGUA	 		GGCTAGCTACAACGA		5875
	CA G UAAACCUG		 	GGCTAGCTACAACGA		5876
	JAA A CCUGAUUG			GGCTAGCTACAACGA		5877
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ļ	IGG G UUUGUUCA			GGCTAGCTACAACGA		5879
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	UA G CCAGACUU		 	GGCTAGCTACAACGA		5885
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	UU A UAACAUCU	 				5891
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	AC A UCUAUUGU					5893
	ICU A UUGUAUUA			GGCTAGCTACAACGA		5894
	UU G UAUUAUUU			GGCTAGCTACAACGA		5895
		 		GGCTAGCTACAACGA		5896
	IGU A UUAUUUAG	———		GGCTAGCTACAACGA		5897
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5597	AAAAGAAA A UGUGUUUU	4624	AAAACACA GGCTAGCTACAACGA TTTCTTTT 5910	
5599	AAGAAAAU G UGUUUUUU	4625	AAAAAACA GGCTAGCTACAACGA ATTTTCTT 5911	1
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5608	UGUUUUUU G UUUGGUAC	4627	GTACCAAA GGCTAGCTACAACGA AAAAAACA 5913	3
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5637	UGCUGGGA A CAAUGACU	4635	AGTCATTG GGCTAGCTACAACGA TCCCAGCA 5921	Ĺ
5640	UGGGAACA A UGACUAUA	4636	TATAGTCA GGCTAGCTACAACGA TGTTCCCA 5922	2
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5655	UAAGACAU G CUAUGGCA	4641	TGCCATAG GGCTAGCTACAACGA ATGTCTTA 5927	7
5658	GACAUGCU A UGGCACAU	4642	ATGTGCCA GGCTAGCTACAACGA AGCATGTC 5928	3
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5663	GCUAUGGC A CAUAUAUU	4644	AATATATG GGCTAGCTACAACGA GCCATAGC 5930)
5665	UAUGGCAC A UAUAUUUA	4645	TAAATATA GGCTAGCTACAACGA GTGCCATA 5931	L.
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5696	AGAAACAA A UGUAAUAU	4654	ATATTACA GGCTAGCTACAACGA TTGTTTCT 5940	<u> </u>
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5756	GUAUCAGU A UT	UAUGUAG	4673	CTACATAA	GGCTAGCTACAACGA	ACTGATAC	5959
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5761	AGUAUUAU G U	AGCAUAA	4675	TTATGCTA	GGCTAGCTACAACGA	ATAATACT	5961
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5766	UAUGUAGC A U	AACAAAG	4677	CTTTGTTA	GGCTAGCTACAACGA	GCTACATA	5963
5769	GUAGCAUA A CA	AAAGGUC	4678	GACCTTTG	GGCTAGCTACAACGA	TATGCTAC	5964
5775	UAACAAAG G U	CAUAAUG	4679	CATTATGA	GGCTAGCTACAACGA	CTTTGTTA	5965
5778	CAAAGGUC A U	AAUGCUU	4680	AAGCATTA	GGCTAGCTACAACGA	GACCTTTG	5966
5781	AGGUCAUA A U	GCUUUCA	4681	TGAAAGCA	GGCTAGCTACAACGA	TATGACCT	5967
5783	GUCAUAAU G CI	UUUCAGC	4682	GCTGAAAG	GGCTAGCTACAACGA	ATTATGAC	5968
5790	UGCUUUCA G C	AAUUGAU	4683	ATCAATTG	GGCTAGCTACAACGA	TGAAAGCA	5969
5793	UUUCAGCA A U	UGAUGUC	4684	GACATCAA	GGCTAGCTACAACGA	TGCTGAAA	5970
5797	AGCAAUUG A U	GUCAUUU	4685	AAATGACA	GGCTAGCTACAACGA	CAATTGCT	5971
5799	CAAUUGAU G U	CAUUUUA	4686	TAAAATGA	GGCTAGCTACAACGA	ATCAATTG	5972
5802	UUGAUGUC A UI	UUUAUUA	4687	TAATAAA	GGCTAGCTACAACGA	GACATCAA	5973
5807	GUCAUUUU A U	UAAAGAA	4688	TTCTTTAA	GGCTAGCTACAACGA	AAAATGAC	5974
5815	AUUAAAGA A CA	AUUGAAA	4689	TTTCAATG	GGCTAGCTACAACGA	TCTTTAAT	5975
5817	UAAAGAAC A U	UGAAAAA	4690	TTTTTCAA	GGCTAGCTACAACGA	GTTCTTTA	5976

Input Sequence = AF035121. Cut Site = R/Y
Arm Length = 8. Core Sequence = GGCTAGCTACAACGA
AF035121 (Homo sapiens KDR/flk-1 protein mRNA, complete cds.; Acc# AF035121; 5830 bp)

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CLAIMS

1. A compound having Formula II: (SEO ID NO: 5978)

5'-u_sa_sc_s a_sau uc<u>U</u> GAu Gag gcg aaa gcc Gaa Aag aca aB-3'

- wherein each **a** is 2'-O-methyl adenosine nucleotide, each **g** is a 2'-O-methyl guanosine nucleotide, each **c** is a 2'-O-methyl cytidine nucleotide, each **u** is a 2'-O-methyl uridine nucleotide, each **A** is adenosine, each **G** is guanosine, each **s** individually represents a phosphorothioate internucleotide linkage, <u>U</u> is 2'-deoxy-2'-C-allyl uridine, and **B** is an inverted deoxyabasic moiety.
 - 2. A composition comprising the compound of claim 1 and a pharmaceutically acceptable carrier or diluent.
- 3. A method of administering to a cell the compound of claim 1 comprising contacting said cell with the compound under conditions suitable for said administration.
 - 4. The method of claim 3, wherein said cell is a mammalian cell.
 - 5. The method of claim 3, wherein said cell is a human cell.
 - 6. The method of claim 3, wherein said administration is in the presence of a delivery reagent.
- 7. The method of claim 6, wherein said delivery reagent is a lipid.
 - 8. The method of claim 7, wherein said lipid is a cationic lipid.
 - 9. The method of claim 7, wherein said lipid is a phospholipid.
 - 10. The method of claim 6, wherein said delivery reagent is a liposome.
- 11. A method of administering to a cell the compound of claim 1 in conjunction with one or more other drug comprising contacting said cell

- with the compound and the other drug(s) under conditions suitable for said administration.
- 12. A method of inhibiting ocular angiogenesis in a subject comprising the step of contacting said subject with the compound of claim 1 under conditions suitable for said inhibition.

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- 13. The method of claim 12, wherein said angiogenesis is associated with diabetic retinopathy.
- 14. The method of claim 12, wherein said angiogenesis is associated with age related diabetic retinopathy.
- 10 15. A method of cleaving RNA comprising a sequence of KDR RNA comprising contacting the compound of claim 1 with said RNA under conditions suitable for the cleavage of said RNA.
 - 16. The method of claim 15, wherein said cleavage is carried out in the presence of a divalent cation.
- 15 17. The method of claim 16, wherein said divalent cation is Mg2+.
 - 18. A method of administering to a mammal the compound of claim 1 comprising contacting said mammal with the compound under conditions suitable for said administration.
 - 19. The method of claim 18, wherein said mammal is a human.
- 20 20. The method of claim 18 wherein said administration is in the presence of a delivery reagent.
 - 21. The method of claim 18, wherein said delivery reagent is a lipid.
 - 22. The method of claim 21, wherein said lipid is a cationic lipid.
 - 23. The method of claim 21, wherein said lipid is a phospholipid.
- 25 24. The method of claim 20, wherein said delivery reagent is a liposome.

- 25. A method for treating a subject having endometriosis, comprising contacting said subject with a nucleic acid molecule that modulates the expression of VEGF, VEGFR1, and/or VEGFR2, under conditions suitable for said treatment.
- 5 26. The method of claim 25, wherein said nucleic acid molecule is an enzymatic nucleic acid molecule.
 - 27. The method of claim 25, wherein said nucleic acid molecule is an antisense nucleic acid molecule.
- 28. The method of claim 25, wherein said nucleic acid molecule is a dsRNA nucleic acid molecule.
 - 29. The method of claim 25, wherein said nucleic acid molecule is a nucleic acid aptamer.
 - 30. The method of claim 25, wherein said nucleic acid molecule comprises a sequence having SEQ ID NO: 5977.
- 15 31. The method of claim 26, wherein said enzymatic nucleic acid molecule has an endonuclease activity to cleave RNA encoded by an VEGFR1 and/or VEGFR2 gene.
 - 32. The method of claim 26, wherein said enzymatic nucleic acid molecule is in a hammerhead configuration.
- 20 33. The method of claim 26, wherein said enzymatic nucleic acid molecule is in an Inozyme configuration.
 - 34. The method of claim 26, wherein said enzymatic nucleic acid molecule is in a Zinzyme configuration.
- The method of claim 26, wherein said enzymatic nucleic acid molecule is in a DNAzyme configuration.
 - 36. The method of claim 26, wherein said enzymatic nucleic acid molecule is in a G-cleaver configuration.
 - 37. The method of claim 26, wherein said enzymatic nucleic acid molecule is in an Amberzyme configuration.

- 38. The method of claim 26, wherein said enzymatic nucleic acid molecule is an allozyme.
- 39. The method of claim 25, wherein said nucleic acid molecule is chemically synthesized.
- 5 40. The method of claim 25, wherein said nucleic acid molecule comprises at least one 2'-sugar modification.
 - 41. The method of claim 25, wherein said nucleic acid molecule comprises at least one nucleic acid base modification.
- The method of claim 25, wherein said nucleic acid molecule comprises at least one phosphate backbone modification.
 - 43. The method of claim 25, wherein said subject is a human.

15

- 44. A method for treating a subject having endometriosis, comprising administering to the subject a nucleic acid molecule that modulates the expression of VEGF, VEGFR1, and/or VEGFR2, under conditions suitable for said treatment.
- 45. The method of claim 44 wherein said administration is in the presence of a delivery reagent.
- 46. The method of claim 45, wherein said delivery reagent is a lipid.
- 47. The method of claim 46, wherein said lipid is a cationic lipid.
- 20 48. The method of claim 46, wherein said lipid is a phospholipid.
 - 49. The method of claim 45, wherein said delivery reagent is a liposome.
 - 50. The method of claim 44, further comprising administering one or more other drug(s).
- 51. The method of claim 50, wherein said other drug(s) are chosen from GnRH

 25 (gonadotropin releasing hormone) agonists, Lupron Depot (Leuprolide Acetate), Synarel (naferalin acetate), Zolodex (goserelin acetate), Suprefact (buserelin acetate), Danazol, and oral contraceptives.
 - 52. A compound having Formula I: (SEQ ID NO: 5977)

5

5' gsasgsusugcUGAuGagg ccgaaa ggccGaaAgucugB 3'

wherein each \mathbf{a} is 2'-O-methyl adenosine nucleotide, each \mathbf{g} is a 2'-O-methyl guanosine nucleotide, each \mathbf{c} is a 2'-O-methyl cytidine nucleotide, each \mathbf{u} is a 2'-O-methyl uridine nucleotide, each \mathbf{A} is adenosine, each \mathbf{G} is guanosine, each \mathbf{s} individually represents a phosphorothioate internucleotide linkage, $\underline{\mathbf{U}}$ is 2'-deoxy-2'-C-allyl uridine, and \mathbf{B} is an inverted deoxyabasic moiety.

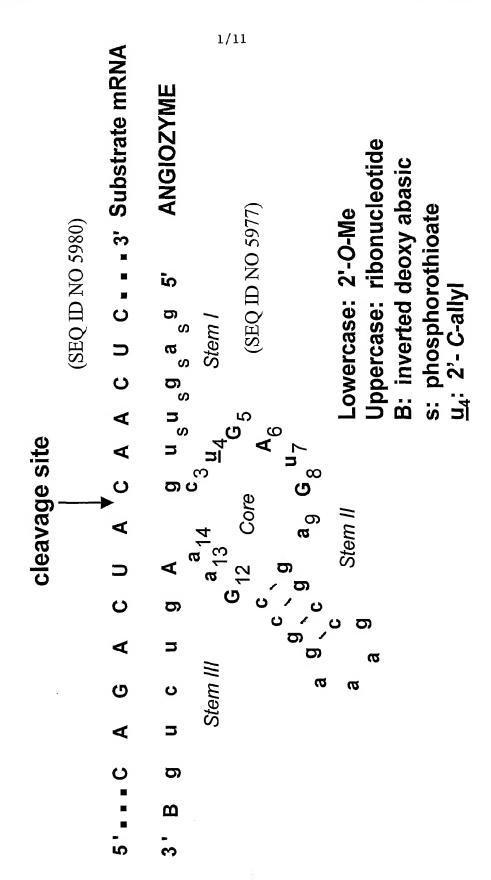
- 53. A composition comprising a compound of claim 52 in a pharmaceutically acceptable carrier or diluent.
- 10 54. A method of administering to a cell the compound of claim 52 comprising contacting said cell with the compound under conditions suitable for said administration.
 - 55. The method of claim 54, wherein said cell is a mammalian cell.
 - 56. The method of claim 54, wherein said cell is a human cell.
- 15 57. The method of claim 54, wherein said administration is in the presence of a delivery reagent.
 - 58. The method of claim 57, wherein said delivery reagent is a lipid.
 - 59. The method of claim 58, wherein said lipid is a cationic lipid.
 - 60. The method of claim 58, wherein said lipid is a phospholipid.
- 20 61. The method of claim 57, wherein said delivery reagent is a liposome.
 - 62. A method of administering to a cell the compound of claim 52 in conjunction with a chemotherapeutic agent comprising contacting said cell with the compound and the chemotherapeutic agent under conditions suitable for said administration.
- 25 63. The method of claim 62, wherein said chemotherapeutic agent is 5-fluoro uridine.

- 64. The method of claim 62, wherein said chemotherapeutic agent is Leucovorin.
- 65. The method of claim 62, wherein said chemotherapeutic agent is chosen from Irinotecan, CAMPTOSAR®, CPT-11, Camptothecin-11, or Campto.
- 5 66. The method of claim 62, wherein said chemotherapeutic agent is Paclitaxel.
 - 67. The method of claim 62, wherein said chemotherapeutic agent is Carboplatin.
 - 68. A mammalian cell comprising the compound of claim 52...
- 69. The mammalian cell of claim 68, wherein said mammalian cell is a human 10 cell.
 - 70. A method of inhibiting angiogenesis in a subject, comprising the step of contacting said subject with the compound of claim 52, under conditions suitable for said inhibition.
 - 71. The method of claim 70, wherein said angiogenesis is tumor angiogenesis.
- 15 72. A method of treatment of a subject having a condition associated with an increased level of VEGF receptor comprising contacting cells of said subject with the compound of claim 52, under conditions suitable for said treatment.
- 73. The method of claim 72 further comprising the use of one or more drug 20 therapies under conditions suitable for said treatment.
 - 74. A method of cleaving RNA comprising a sequence of VEGFR1 (flt-1), comprising contacting the compound of claim 52 with said RNA under conditions suitable for the cleavage of said RNA.
- 75. The method of claim 74, wherein said cleavage is carried out in the 25 presence of a divalent cation.
 - 76. The method of claim 75, wherein said divalent cation is Mg2+.

- 77. The method of claim 72, wherein said condition is cancer.
- 78. The method of claim 77, wherein said cancer is breast cancer.
- 79. The method of claim 77, wherein said cancer is lung cancer.
- 80. The method of claim 77, wherein said cancer is colorectal cancer.
- 5 81. The method of claim 77, wherein said cancer is renal cancer.
 - 82. The method of claim 77, wherein said cancer is melanoma.
 - 83. The method of claim 77, wherein said cancer is pancreatic cancer.
 - 84. The method of claim 79, wherein said lung cancer is non-small cell lung carcinoma.
- 10 85. The method of claim 81, wherein said renal cancer is renal cell carcinoma.
 - 86. The method of claim 73, wherein said other therapy is 5-fluoro uridine.
 - 87. The method of claim 73, wherein said other therapy is Leucovorin.
 - 88. The method of claim 73, wherein said other therapy is Irinotecan, CAMPTOSAR®, CPT-11, Camptothecin-11, or Campto.
- 15 89. The method of claim 73, wherein said other therapy is Paclitaxel.
 - 90. The method of claim 73, wherein said other therapy is Carboplatin.
 - 91. A method of administering to a mammal the compound of claim 52 comprising contacting said mammal with the compound under conditions suitable for said administration.
- 20 92. The method of claim 91, wherein said mammal is a human.
 - 93. The method of claim 91, wherein said administration is in the presence of a delivery reagent.
 - 94. The method of claim 93, wherein said delivery reagent is a lipid.

- 95. The method of claim 94, wherein said lipid is a cationic lipid.
- 96. The method of claim 94, wherein said lipid is a phospholipid.
- 97. The method of claim 93, wherein said delivery reagent is a liposome.
- 98. A method of administering to a mammal the compound of claim 52 in conjunction with a chemotherapeutic agent comprising contacting said mammal with the compound and the chemotherapeutic agent under conditions suitable for said administration.
 - 99. The method of claim 98, wherein said chemotherapeutic agent is 5-fluoro uridine.
- 10 100. The method of claim 98, wherein said chemotherapeutic agent is Leucovorin.
 - 101. The method of claim 98, wherein said chemotherapeutic agent is Irinotecan, CAMPTOSAR®, CPT-11, Camptothecin-11, or Campto.
 - 102. The method of claim 98, wherein said chemotherapeutic agent is Paclitaxel.
- 15 103. The method of claim 98, wherein said chemotherapeutic agent is Carboplatin.

Figure 1: Anti-Flt-1 Ribozyme: ANGIOZYME



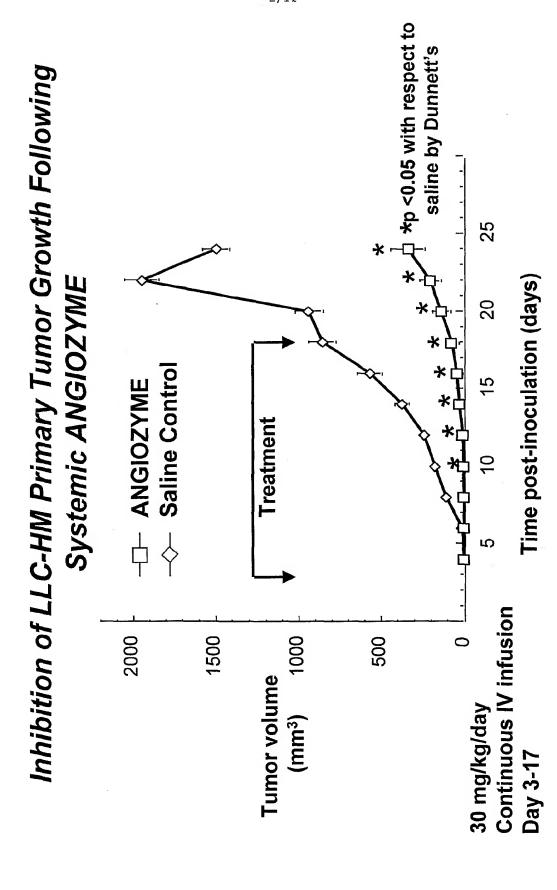
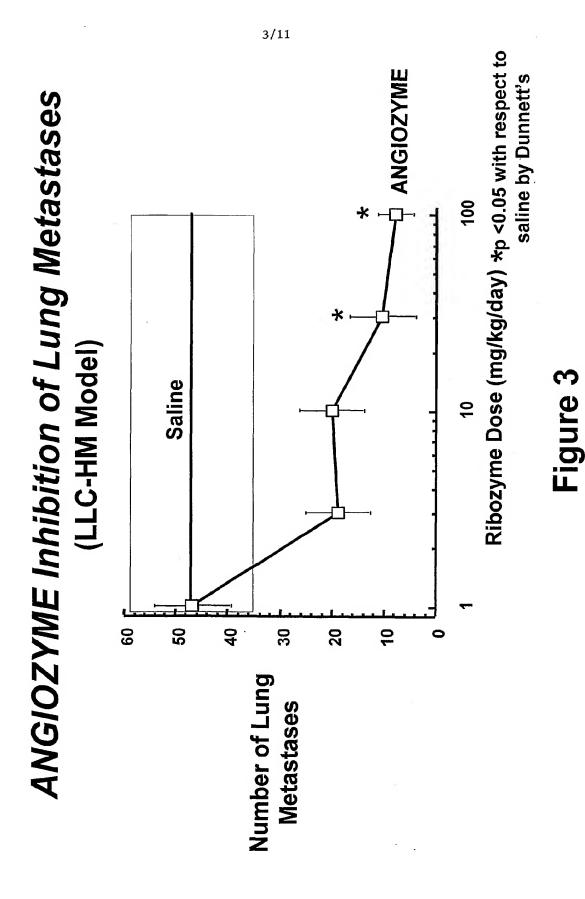
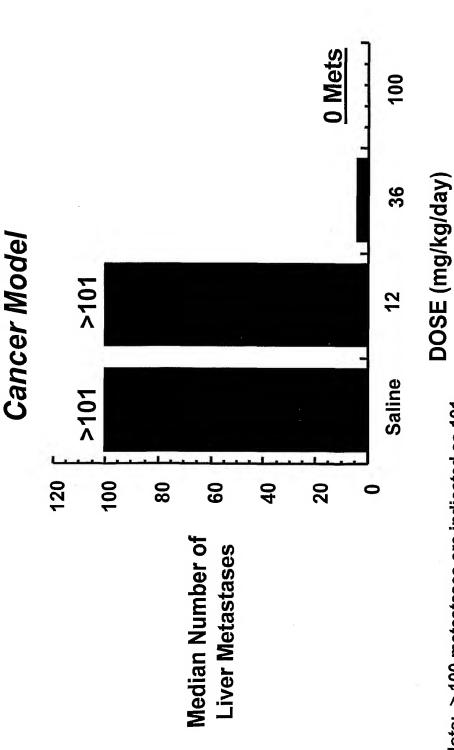


Figure 2







Note: > 100 metastases are indicated as 101.

Figure 4

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Figure 5: Plasma concentration profile of ANGIOZYME after a single subcutaneous dose of 10, 30, 100 or 300 mg/m²

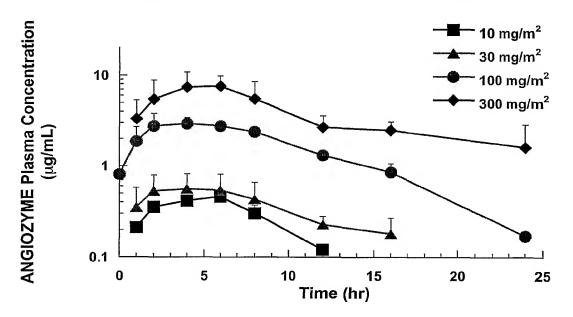


Figure 6: Examples of Nuclease Stable Ribozyme Motifs

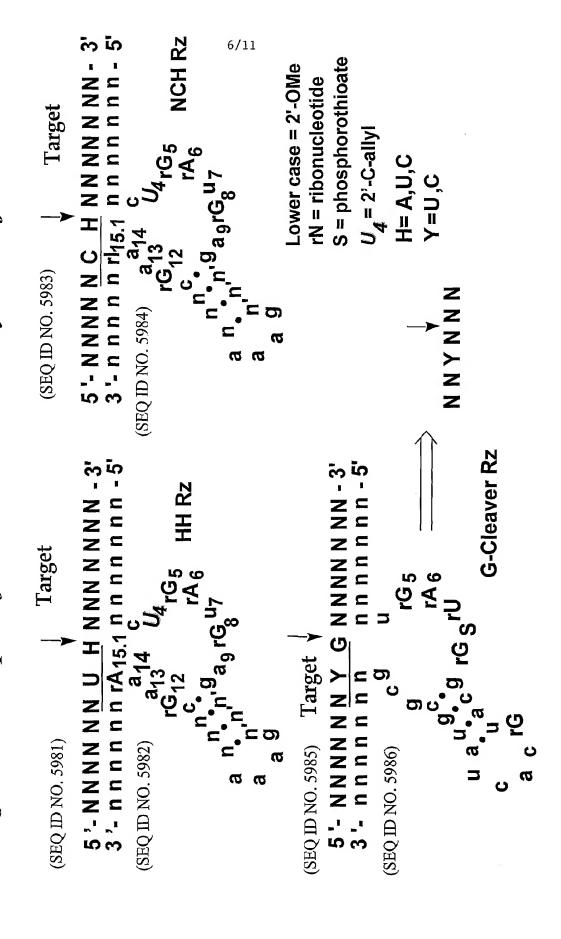
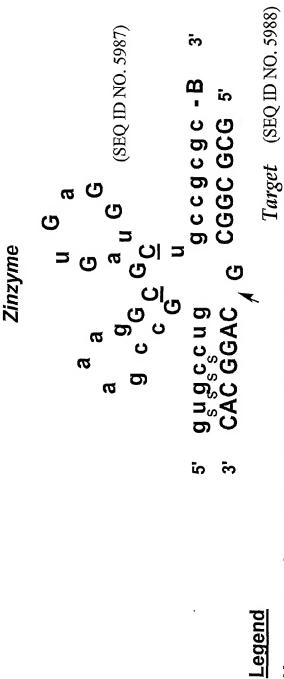


Figure 7: Stabilized Zinzyme Ribozyme Motif



Uppercase: indicates natural ribo residues

C: indicates 2'-deoxy-2'-amino Cytidine

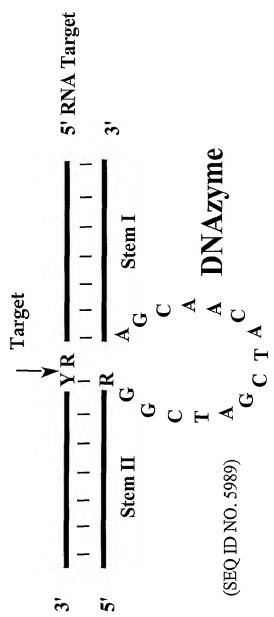
Lowercase: 2'-O-methyl

S: phosphorothioate/phosphorodithioate linkage

B: 3'-3' abasic moiety

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Figure 8: DNAzyme Motif



Legend
Y = U or G
R = A or G

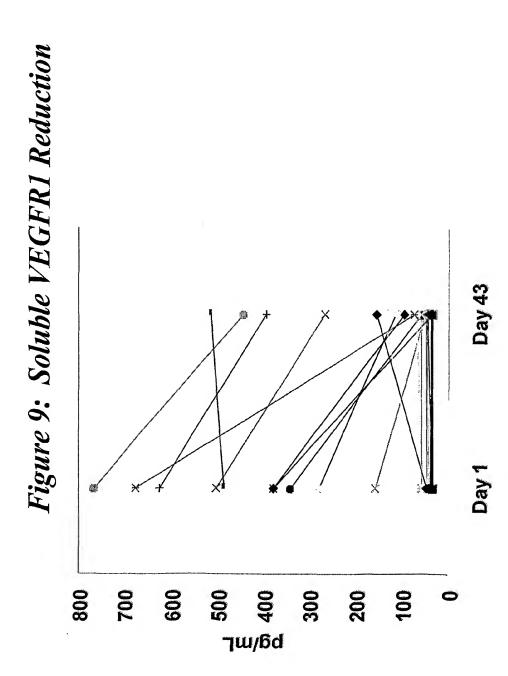
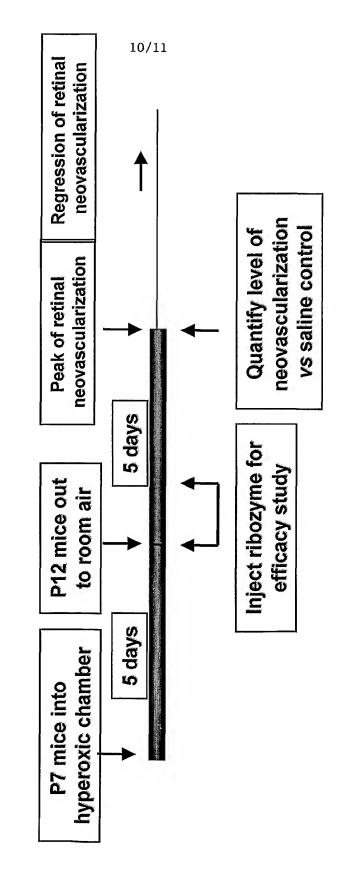
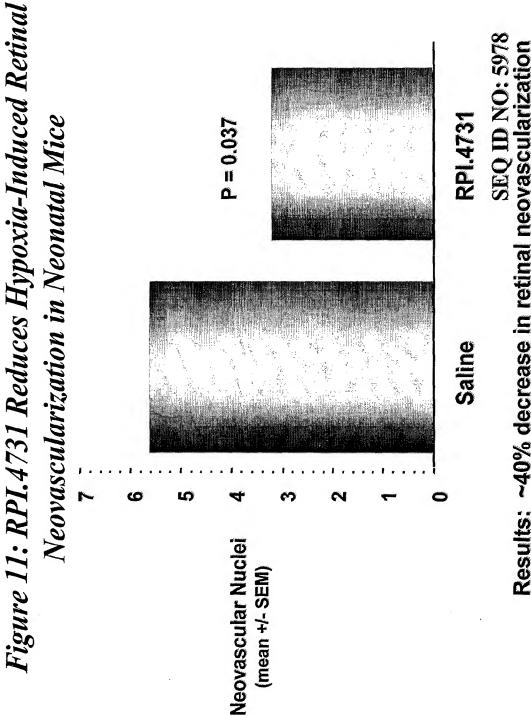


Figure 10: Mouse Model of Proliferative Retinopathy



Note: Peak VEGF levels noted 12 hr after exposure to room air

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Results: ~40% decrease in retinal neovascularization following two intraocular injections of RPI.4731